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EDITORIAL.

THE EXPERT MEDICAL WITNESS IN FRANCE.

So much has been written about expert medical testimony as illustrated in a recent notorious trial that it seems almost superfluous to touch upon the subject in an editorial way. A solution of the problem seems so far from being a possibility in this country that a consideration of the method by which the expert in medico-legal affairs is brought before the courts in France might at least show the way towards the reform so much needed.

In the *American Journal of Insanity* (April) there is a letter by A. V. Parant, describing the manner in which the French courts have solved the problem and in addition touches upon the abuses so prevalent here. There is little doubt that the crux of the whole question as has been shown by numerous papers on the subject, does not lie in the nature of expert testimony itself, but solely in the way it is presented to the court and the way it is obtained. For both of these faults the physician who gives and the lawyer who obtains the testimony is to blame. If it were possible to obtain certain fundamental qualifications as to both experts and method and if it were further possible to have those who are in authority follow them, it is well within the limits of possibility that the problem, vexing as it is, will disappear.

Parant strikes at the root of the matter when he gives an important place to the qualification of an expert. This qualification recognized by the courts concerns itself with both the knowledge and the character of the expert. The courts of appeal at the beginning of each year name doctors of medicine on whom they confer the title of court experts. In order to be named one must have practiced at least five years or hold a diploma for medico-legal studies. From the list which is as select as possible the future court experts in any given case are chosen. Here at the very beginning there is created a standard that places all experts in a definite selected class.

The French expert, in no instance, is invited or hired, by either the state or the defense, as is the custom here. He is called by the court who naturally must be considered as one without prejudice. In insanity

inquiries, which this article deals with especially, the only duty of the expert is in the determination of the mental state of the prisoner. The limits of such an inquiry are fixed by the pathological state which is supposed to be present. In this specific instance the question of responsibility is less important than that of insanity. To make a diagnosis of mental disease or to declare the individual mentally sound is the task of the expert. The clinical point of view is the only one that is accentuated. A further important point that bears indirectly upon the question, is the fact that experts are paid according to a scale fixed by the courts. This scale of payment, which seems ridiculously small to us in America, is little more than that paid to an ordinary witness. It is seldom that an expert in a case of moderate importance obtains more than about twenty dollars for his service.

The advantage of this is obvious. The courts of law are an affair of the people and no question of money influence should ever be allowed to enter into its activities. An expert serving the courts, that is serving the state, is paid that minimal wage which all state service requires. As a foundation for the correct interpretation of the mental problem before the French expert these two propositions are admitted: First, that insanity carries with it irresponsibility; and second, that the diagnosis of insanity rests upon scientific demonstration. Grasset has well pointed out that there may be two kinds of responsibility a moral and a legal sort. These are often confused. The legal responsibility always presupposes a normal nervous system, or at least an intact one. It is with this side of the question that the expert has to do. In other words, he must decide whether there is anything radically wrong with the nervous system and whether this abnormal state can be made known by an examination.

The expert then places the result of such deductions before the judge or tribunal and as a scientific man he can have no interest in any phase of the problem, in any of its legal phases at any rate. Grasset adds that human acts are the result of a judgment between different motives and incentives. That individual is responsible from the biological and medical standpoint who has healthy nervous centers in condition to judge sanely the comparative value of these different motives and incentives. A definition of medico-legal responsibility limits the domain of the expert and he must not be permitted to wander into other fields. He must be instructed to confine himself to his legal role which is to declare whether this or that individual, whom he is commissioned to examine, is or is not insane and to what extent his insanity goes.

The question of contradictory testimony is likewise considered. Parant suggests, in this connection, that each expert appointed by the court from the list before referred to, be the subject of a possible challenge by both sides as is the custom in our own panel of juries. In this way a group

of experts could finally be selected which would be acceptable to both sides of the case and their judgment be absolutely followed as being the result of an unbiased reasoning from the facts obtainable in the examination.

For the proper qualification of experts in the courts there has now been established an institute for the training of experts, both in Paris and Lyons, The Institute of Legal Medicine. Numerous lectures and special courses are prescribed for such physicians as wish to engage in this kind of work. A diploma is conferred after the proper time and upon the testimony of necessary fitness.

This brief sketch of the French method is instructive as showing that an abuse that has extended over many years and made so undignified a showing before the American people can be changed in a short time if the fundamental principles be followed. If the courts and the physicians would agree upon a definite plan it would not be very long before the scenes revealed at the Thaw trial would be impossible in this country in a court of law representing civilized communities.

THE UNDENIABLE VERITIES OF ALCOHOL.

The obscurants in complete panoply are again in the center of the medical arena, this time vociferating against the use of alcohol. Although their seat of action is England, and not America, we should not make light of their onslaughts, for similar outbreaks have, in the past, characterized our own broadmindedness. And who can tell when our future, though innocence be its present hall-mark, will not be surcharged with portents of the on-coming of similar sweeping denunciations. The manifesto published in the *Lancet* and signed by sixteen reputable London physicians, who advocated the scientific use of alcohol, has started a discussion that has all the undesirable elements which go to make up the Puritanic conscience. In the many opposition letters perused by us, there is not a gleam that might possibly be construed into a hopeful dawn of intelligence in the intellectual night of the writers; in fact, their state seems to be that dull deliquium into which many doctors and others of supposedly "lesser education," fall, when they "take their pen in hand just to write a few lines to the editor."

Two recently published books, one by an Englishman (The Psychology of Alcoholism, George B. Cutten; Walter Scott Publishing Co., London, 1907), the other by a German (Alcohol, The Sanction for its Use, Dr. J. Starke; G. P. Putnam, New York, 1907), give evidence of a decided difference in the national and mental traits of the two authors; for while Mr. George B. Cutten writes slipshoddedly down to those misdirected en

thusiasts, who delight in their own narrowness, and their deep-seated prejudices, Dr. J. Starke indites with a sureness of his subject, an earnestness of purpose and a clarity of style that make his book a most convincing argument for the scientific use of alcohol.

Mr. Cutten, with a pomposity worthy of a penny-a-liner who ekes out a precarious living by expatiating on high morality for "our daily readers," maintains that "the highest possible perfection of the nervous system is only possible with strict abstinence," and that "high, virile thinking, and keen unfaltering judgment cannot be a product of a mind which is dependent on an alcoholised brain." To support his many high-flown asseverations, he ransacks the classics and quotes many apt sayings, in the hope that the modern mind which, fortunately, has been benefited by some sort of scientific training since the year one, will be impressed. One quotation, especially that of Aristophanes, that "to drink is evil, for from wine arises breaking of doors, blows, stoning, and the money that must be paid down when the headache's past," condemns the book in so far as it is a declaration to the world that Mr. Cutten seriously considers the sprightly wit and humor of the famous Greek dramatist who convulsed Athens with his comedies, "The Frogs" and "The Birds," in the fifth century before the Christian era.

Dr. Starke, on the other hand, has written a sane tract; one that should be placed in the hands of all teetotalers who are clamorously demanding reform. A few citations should suffice to show the high value of the work. On page 47 we read, "and so, for example, it is now very probable that the so-called 'beer heart' has but little to do with alcohol. This really has its origin in overnutrition (with the consequent deposition of fat in organs in which fat cannot be used), and in the colossal overtaking of the function of the heart. I have known persons who drank more than nine quarts of beer daily. Now, all this liquid has to pass through the heart and the blood vessels before it can be eliminated from the body. Upon this depend nine-tenths of the consequences of immoderate beer drinking. That has been proved to me to the extent of my having observed how the same affections of the heart occurred to persons who took little alcohol and none regularly, but in other respects were very good livers, and drank a good deal of coffee, water, etc. A man can quite ruin his blood vessels and his heart by daily increments of the fluid ingested, even if it be only water," and on page 34 is printed the following truism: "It is to assuage the persistent feeling of misery, that many a mentally defective or unfortunate person drinks, and for that purpose it is not 'alcohol' that he uses, but 'alcoholic drinks.' As a rule he is not content with drinks of which alcohol is the sole active principle, but after a while he generally craves those that contain fusel oil in addition to alcohol, like many distilled spirits. And in foreign countries district and social strata

known for drunkenness are those characterized by the notorious use of spirits containing fusel oil, yea, even in better circles whoever drinks alcohol for the sake of stupefaction takes such spirits in course of time. Hence there arises the question of whether drunkenness is not in great measure to be attributed to the fusel oil rather than to the alcohol."

With these verities in mind, the pratings of our visionary ranters should not disturb the thinking element in our population. And, truth to tell, small heed would be paid them were their outpourings printed in books. Unfortunately, the daily press is their medium, and so long as their fiery words and distorted opinions are encouraged so that the uneducated may be instructed, the clear, serene face of science will be besmirched, and our mental equipoise undermined.

FEMININISM VERSUS TOBACCO.

The kindly spirit which has recently invaded the ranks of an American medical society, converting the male members from truculent entities into gentle and passive members of the body politic, has been the means of adding another jewel to the much-begemmed crown of American womanhood, wrested as part payment for victories won in the holy war for supremacy. We had hoped that the battle between the sexes would continue indefinitely in these, our democratic United States, if only to add zest to the monotony of our daily existence, and as an object lesson to those benighted Europeans who happen to stray hitherwards; but with the complete defeat of the male members of the medical society under consideration, on the question whether to smoke or not to smoke in the presence of a half-dozen women members, we must declare that all further fighting be decreed perfectly useless.

Without going into the details of the proceedings that led to the annihilation of the smoking privilege enjoyed for years by the male members, it would be well to ask why some sapient son of Adam did not try, by blandishments gentle and diplomatic, to convince one or another "lady" member, directly he saw the storm brewing, of the many advantages that would accrue to her were she to smoke whilst a paper bordering on inanity and stupidity was being read? Many a member of our medical societies can vouch for a kindly feeling toward his fellow-men in similar circumstances, and granting the truth of this statement, why should not a "lady" member, who as an integral part of a medical society, classes herself with the male element, and not with her inferior sisters, experience the same delightful sensations. Evidently the suggestion was not made, or if made must have been so frowned down by the Spartan-like matrons that the foolishly daring male, who had but insinuated a trial, was gorgonized into uttermost silence.

Prejudices are foolish and puerile; they are the expression of small ideas, and they should not be allowed to lodge in the mind of any member of an organization to the destruction of the peace and comfort of others. But why preach against the small ideas of man's mental alembic; could it do its customary distilling if one large, mighty idea got into it by accident? The ingenious reader may fancy we are too harsh in our strictures, but to justify our position in the matter, we have the very best authority for stating that no misgivings entered into the mind of any "lady" member that she and her male champions were making an unwonted exhibition of themselves; moreover, they never once paused to consider the untenability of their attitude. We even have the hardihood to suppose that occasionally they smiled with easy scorn upon those who take the world in a sane sort of way, that is more philosophically than they, and voted all those persons godless gluttons who recreate themselves with whiskey, cigars and beef.

Femininism when confined to women, is not to be wholly condemned, but when men become infected with it, as was the case in the society which we have in mind, it is about time to acknowledge that man has fallen from his high estate. And to what depths many fell some future historian, who has the cunning of a Carlyle or a Macauley, will have to do justice. Will any historian, we pause to ask, be he the mightiest genius of his age, be able to transcribe to his inspired pages the exquisitely humorous words of the physician, who solemnly declared, smoking must stop, because "whenever I go home from this Society, I simply cannot go in to my wife until I have taken off all my clothes".

The consideration the doctor showed for his wife prior to the extinction of the smoking habit in the medical society, and the resulting conjugal bliss when he announced to her his victorious speech and the routing of the enemy, tobacco, are fitting subjects for poetry. Prose is decidedly not the medium for any mortal's rhapsodies.

THE ABOLITION OF QUACKERY.

In spite of the crusade which has so recently flourished against the quack, the patent medicine man, and the nostrum exploiter, we feel a sense of impotency akin to that of failure in observing these arrant gentlemen still in the field; some of them perhaps, a bit wobbly, but mostly unabashed, undefeated and hopeful after the storm. A crusade is only a crusade and as such soon spends its force. The great American fraud has its roots so deeply placed in the American mind that the result of any agitation might have been foreseen. Wrecked again upon the rocks of uncertainty, our battered hopes give small solace for the future, and we

are inclined to protest and moralize perhaps—like the lady—a bit too much.

The part played by the medical profession toward the suppression of the evils of quackery and quackdom has not been one of perfect unanimity of feeling that might be expected. We represent a house divided against itself, not once but many times. Some of us assume so high an ethical standard that others of us are inclined to blink in the glory of the light. Some of us have such tradesman-like ideals, or rather lack of ideals, that the rest must stand askance and cry "unclean." Again many of us do things that so closely resemble the old original quack doctor that there seems to be little help for us. We are not all on the same moral or mental plane, nor do we have the same financial exigencies to face as we follow our calling. A thousand temptations beset our path, and moral justification is certainly an affair as elastic and resilient as rubber.

To us it seems that the question which we as a profession have to answer takes origin in public ignorance and credulity. We agree with Bacon, who says, "We see the weakness and credulity of men is such as they will often prefer a mountebank or witch before a learned physician". Here we start with diseased ignorance hoping for relief; and as physicians we must enter on the stage and play our part, a part which may be that of a tradesman or of a true, professional man.

"A trade," says President Faunce of Brown University, "is an occupation for a livelihood, a profession is an occupation for service of the world." How many of us, let each one ask himself, looks upon his calling in the light of a ministry?

The fable of the bundle of sticks is not inapplicable. We feel that the irregularities, which so please a gullible public and which thrive and increase and wax strong, will so continue. The patent medicine man will still dazzle us with his ill-gained wealth, and the semi-quack doctor will lead the profession, financially speaking, so long as we are not impressed, as a whole, with the true aims of our work in the world.

It is not the childish, ingenuous quack who flouts respectability that we need fear, but the smooth-tongued, pharisaical quack, whose position is quite secure in medical ranks and who shows a Pecksniffian horror when the overt methods of the true quack are mentioned. For he is the obstacle to purification of medical ethics, and not until his ostracism will the war against the advertising quack, the patent medicine man and the nostrum exploiter be effective.

THE ROAD TO YESTERDAY.

That Medical History Clubs have a purpose and a good one, within decided limitations, is patent to those whose readings have taken them into historical fields as yet but half explored by modern physicians. Gropings in the medical obscurities of periods prior to the Renaissance deserve attention, even applause, for the labor entailed means much perseverance, and judged by lenient critics, considerable erudition. It is only when a member of one or another of these dignified clubs takes the short road to yesterday, and reads a paper that is nothing but a grotesque architecture of words descriptive of a decayed structure of conventionalities, that we feel as if a protest were not untimely. This rather narrow and biased view is prompted by reading, in the Johns Hopkins Hospital Bulletin for May, Dr. J. G. Mumford's "Boston Medicine One Hundred Years Ago and a Notable Physician of the Last Century", an essay read before the Johns Hopkins Historical Society, February 11th, 1907.

Medical History Clubs, as we understand them, should further researches in that part of medical history which is an unknown quantity to all but the small minority who have made the subject a life study. In doing this their *raison d'être* cannot be questioned, and though certain modern spirits who are actively engaged in the mental pleasure and ecstasy of living in the seething present, refuse to take cognizance of their import and, in fact, view them with contempt, it must be admitted by all fair-minded critics that aside from a certain fascination pertaining to the study of medical history, considerable ultimate good, results. For even though at times the subject of the paper read exploits such questionable heroes of science as Mesue, known as James Damascenus, Rhazes or Magister Salernus, the high purpose of the Medical History Clubs is not lost sight of and a fillip is dealt out to stir the stagnant pools of historical thought. But Dr. J. G. Mumford's paper is the converse of our convictions for he dwells at length upon a rather modern, known and uninteresting period in the social, economic and medical history of Boston, and heaps undue adulation on a character whose message to the world had few, if any, gleams of science and, moreover, spelt the instability and vagaries of eccentricity.

Boston, in the first half of the nineteenth century, was without exception the best regulated, the best conducted, most respectable community in the world. It also was the most provincial. We do not need Dr. Mumford's word for what he characterizes as its entrancing simplicities; Boston writers of worth and reputation have told us enough of these to allay any fears that might exist outside Massachusetts' capital that, in the early part of the nineteenth century, the worldly and wasteful

methods of metropolitan life had invaded its well-guarded precincts. Again, the twice-told tale is told us of the prosperity of the merchants, the simple tastes of their wives, the worth and value of such cognate organizations as the Massachusetts Humane Society, the Boston Female Asylum and the Charitable Mechanic Association. All this would be of interest in a modern guide-book, but in a scholarly paper read before a dignified body of men interested in the dawn of medical science, it has no pertinency, and awakens only a feeling of mordant criticism.

As to Dr. Samuel Gridley Howe, the hero of the paper, though Dr. Mumford protests against the world referring to him as Mrs. Julia Ward Howe's husband, his reasons for objecting are not cogent or convincing. Of all the erratic men who have found encouragement and toleration in the social laxity of our republic, Dr. Howe was probably the most unique figure. The Greek War of Independence, the Polish Revolution, Laura Bridgman, the famous blind deaf-mute, a fatuous expedition to annex Santo Domingo, engaged his attention for a time but the lack of mental equipoise in all his undertakings prevented his achieving lasting success. He was always a buccaneer or a filibuster; and despite the fact that Dr. Mumford characterizes him as "the Apostle of Freedom, the Hero of Greece, and the Champion of the Slaves," it is an error in judgment to place him in the bead-roll of medical notabilities whose lives and works are mile-stones in medical progress.

AN UNHOLY ALLIANCE.

We observe that the lion and the lamb are about to lie peacefully together in Boston, last of places to look for such an event. We tremble to think of the restlessness this may cause in the spirit world beyond. Shade of Oliver Wendell Holmes! What would that worthy gentleman say and think could he but read the words of some of his followers, and see his despised homeopath about to enter the sacred membership of the Massachusetts Medical Society?

But this is not jest. Richard C. Cabot* has spoken the homeopaths as regards their disagreement with "other physicians". He says that the medical profession has been unduly arrogant in assuming the term "regular" as opposed to homeopath, and further that "two ships that steer for the same port are sure to come together sooner or later, no matter how far apart they may be on the ocean. If we keep ourselves in this mind, if we are fair and honest and not uncharitable, we shall pool our knowledge some day and abolish sectarianism in medicine."

Dr. Cabot's object in this seems to be the "soft-soaping" of the homeo-

* Critic and Guide, April, 1907.

paths into a willingness to be drowned in the depths that await them when they shall drop their distinguishing name. All of us nowadays realize without Dr. Cabot's aid the fact that the cognomen "homeopath" is a trade-mark without which the individual bearing it would be reduced to the level of practicing medicine, pure and simple. Dr. Cabot's object is perhaps a worthy one, but fulsome praise when not borne out by facts is always to be condemned. What homeopathy has contributed to the advancement of science is only that which has come through an attitude of negation, and of unconscious effort. Perhaps we should forgive them for they knew not what they did. But we do not feel that they should be flattered into suicide, but rather be allowed to continue their progress through inanition to eternal desuetude.

The monograph of Dr. Holmes entitled "Homeopathy and its Kindred Illusions" will bear re-reading. We believe it to be not only a fair and just estimate of the homeopathy of his time but also a prophecy of the homeopathy of our generation and of the future.

LITERARY NOTES.

Gazette Medicale de Paris, the oldest medical journal in France, will in the future appear under the management of Dr. Lucien-Graux, who is also editor-in-chief of the Gazette des Eaux.

The Macmillan Company have just issued a Third Revised Edition of Professor J. Mark Baldwin's well-known work, *Mental Development in the Child and the Race*. Experimental psychology, as evidenced in infant and child life, is gone into with patient research, and because of this, the work stands head and shoulders above the mass of books which merely touch upon child psychology.

W. B. Saunders Company have issued "Prevalent Eye Diseases," by Samuel Theobald, M. D., Clinical Professor of Ophthalmology and Otology, Johns Hopkins University. The majority of works on diseases of the eye are particularly written for the specialists; Dr. Theobald on the other hand has made his book of paramount interest for the general practitioner by dwelling on the requirements of the physician engaged in general practice.

The friends of the late Mrs. Craigie (John Oliver Hobbes) have formed a committee to raise subscriptions for a memorial to her. It is proposed that the memorial should include the following: (1) A portrait plaque, in marble or bronze, to be placed in University College, London; (2) a replica of the plaque to be placed in a suitable position in the United States; (3) a scholarship for the study of modern English literature to be given annually in England; and (4) a similar scholarship to be given annually in the United States.

ORIGINAL ARTICLES.

POST OPERATIVE ACUTE DILATATION OF THE STOMACH. (GASTRO MESENTERIC ILEUS.)

By M. G. SEELIG, M. D., St. Louis, Mo.

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Within the last eight months, there have appeared two exhaustive papers by American authors (Finney, Conner), dealing with the subject of acute dilatation of the stomach. These two articles plus a contribution by Byron Robinson, in 1900, and two or three other casuistic reports represent the sum total of American effort in the study of one of the most grave and least understood of post operative complications. This dearth of published material warrants the report of a single case. It should be said at the outset, however, that the purpose of this report is not to follow the usual lines that have been laid down in all of the previously published accounts of gastro-mesenteric ileus, the object being rather to insist upon the possibility of arriving at an early diagnosis of the condition, reference calling attention only incidentally to many of the unsettled points in the etiology and pathology of the disease, and here, it may be said, that aside from the facts of the sudden occurrence of dilatation of the stomach, and the subsequent serious and often fatal trend of local and general symptoms, there is no definitely established factor in the etiology or pathology of the disease. The truth of this statement is mirrored in the multiplicity of names used in describing the symptom complex:—Acute dilatation of the stomach, gastro-mesenteric ileus, artero-mesenteric ileus, combined ileus and duodenal ileus.

In a fairly large proportion of the cases that have come to autopsy, the duodenum has been compressed by the mesentery to a degree sufficient to close off the intestinal lumen at this point; but it has been shown, that this compression is not an absolutely essential factor in the production of acute dilatation of the stomach. Whether the dilated stomach primarily causes the occlusion of the duodenum, by crowding the small intestines into the pelvis, thus tensing the mesentery so that it constricts the duodenum, or whether the duodenum is primarily constricted by the mesentery, causing a consequent gastric dilatation; whether a primary motor insufficiency of the stomach walls or a pronounced enteroptosis should be reckoned as etiological factors; whether or not, from the point of view of etiology, much importance should be accorded to a long, lax mesentery (Rokitansky), adhesions between loops of intestines (Treves), lax abdominal walls (Kundrat), lordosis, with a low

situation of the duodenum (Schnitzler), excessively high intraabdominal pressure, due, for example, to post operative vomiting (Kelling), whether or not Zade is correct in his assumption that gastro-mesenteric ileus is never caused by the mere gravitation of the intestines into the pelvis, if all other intra-abdominal conditions are normal; whether a primarily dilated stomach may compress the duodenum, and finally, whether the administration of an anaesthetic is a factor in causing the disease, are all moot points, the discussion of which is gone into at length, in the papers of Finney, Conner, Neck and Zade.

Our concern here, is not with the uncertain theories of the etiology or pathology of the disease; but with the eminently certain condition that there is a symptom complex, serious in nature, difficult of diagnosis, and grave as to prognosis, which threatens every patient subjected to operative interference. This condition has been termed gastro-mesenteric ileus, because it is characterized by gastric dilatation, caused in a large proportion of cases by pressure of a tense mesentery against the duodenum beneath it. A most important point to bear in mind is this;—that after the process has once established itself, it constitutes a vicious circle. The more the duodenum is compressed, the more the stomach dilates, and the increasing dilatation of the stomach tends in turn, to maintain and increase the obliteration of the duodenal lumen. The term arterio-mesenteric ileus is used, because the superior mesenteric artery, coursing as it does between the leaves of the mesentery, renders efficient aid in compressing the duodenum.

The symptomatology of the disease is typified in the appended case report:

K. F., 35 years old, a native of Russia, and a blacksmith by occupation, was admitted to the surgical service of the Jewish Hospital, suffering from a large inguino-scrotal hernia, complicated by an undescended testicle. The patient was turned over to me for operation by Dr. H. Tuholske, Surgeon-in-chief to the Jewish Hospital, to whom I am indebted for the privilege of reporting the case.

History.—The family, past and present history were negative, except for the existence of a hernia that was sufficiently painful, at times, to cause incapacity.

Physical Examination.—The patient was a stocky, muscular individual, with particularly well developed abdominal musculature. Examination of the thoracic and abdominal organs and spine was negative. The right scrotal cavity was occupied by a mass about the size of half a coconut, which transmitted an impulse on coughing, and which reduced into the abdominal cavity with a gurgle. The right external ring admitted two fingers. The right testicle was situated within the abdominal cavity.

The urine was acid, clear, and contained no albumen, sugar or casts.

The operation of herniotomy was performed under ether anaesthesia, the duration of the anaesthesia being 30 minutes. The testicle was handled very little, owing to the fact that it was situated so far within the abdominal cavity that it was deemed wiser to leave it there, rather than to divide the vessels of the cord and attempt to put it into the scrotum.

The patient left the table in excellent condition, with a full, strong pulse of 80. He regained consciousness half an hour later, and rested

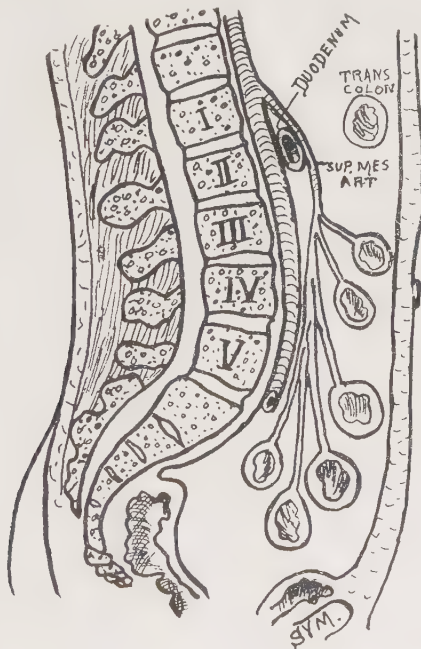


FIG. 1.

*Sagittal section showing normal
viscera (Finney)*

comfortably for twelve hours, after which he began to complain of nausea, and pain in the epigastrium. The patient was examined at this time, by the house surgeon, Dr. Evers, who recorded, that there was slight distension, limited to the epigastric region, and a markedly tympanitic note over the stomach area. The distension and pain both increased, being relieved only temporarily, by loosening the bandage. Twenty-two hours after operation, the patient vomited, for the first time, a large quantity of a dark yellow fluid. After this, he reported that his

pain was much less, and Dr. Evers noted that the epigastric distension practically disappeared. After a short period of time, however, the pain and distension reappeared, and despite gastric lavage, vomiting was repeated at intervals during the night. When I saw the patient, the next morning, his general condition was alarming. His facies were distinctly Hippocratic, and he lay in bed moaning and tossing about, in the state of nervous unrest so commonly seen as the initial symptom of peritonitis. His temperature was 100.5° , and his pulse was 100, small, and thready. There was marked distension in the epigastric region, and the distended area assumed the exact shape of a dilated stomach, the greater curvature of which reached three fingers below the umbilicus. There was a markedly tympanitic note over the distended area; but there was no tenderness in the epigastrium. Nausea was still a prominent symptom, but the patient had not vomited for over three hours. Urine was voided voluntarily in sufficient quantity. The wound was examined, and was found to be in good condition. Flatus had been passed in moderate quantity through a rectal tube, and after a turpentine enema. The passage of flatus had not been followed, however, by any lessening of the distension. Hiccoughing of a most aggravating nature now set in, and the pulse gradually became accelerated until it reached 120 beats to the minute, the patient presenting the symptoms of supervening collapse. These symptoms seemed to point indisputably to the onset of peritonitis, and I was just about to order constant rectal injection of saline solution, and the Fowler position, when the patient suddenly vomited, in projectile fashion, about ten ounces of foul smelling (not faeculent); dark brown fluid. His abdomen was bare and in full view at the time of vomiting, so that I was able to observe, that immediately coincident with the vomiting, the epigastric distension disappeared, as if by magic. Immediately after vomiting, the patient remarked that now, he felt entirely free from pain. This series of phenomena at once suggested acute dilation of the stomach. Gastric lavage was ordered, and a large quantity of dark brown, foul smelling fluid was washed out of the stomach. An analysis of this fluid showed it to contain blood, bile and shreds of gastric mucosa, infiltrated with blood. The patient was placed in an exaggerated Trendelenburg posture, and immediately after assuming this posture, the symptoms abated. Hiccoughing, vomiting, pain and distension ceased, flatus was expelled freely and voluntarily, and the pulse gradually slowed down to 78. All food was withheld by mouth, and rectal feeding was resorted to for the next twelve hours. At the end of this time, the foot of the bed was lowered again, with the result that within an hour, there was a recurrence of the pain, epigastric distension, hiccoughing, vomiting and rapid pulse. The foot of the bed was raised again, and immediately all symptoms ceased. The patient was kept in the Trendelenburg posture for the succeeding

four days, his condition, all the while continuing normal. On the fifth day, the horizontal position was reassumed, with no bad results, and from this time on, recovery was uneventful.

Here then was a symptom complex, ushered in by the gradual development of abdominal pain, followed by distension confined to the epigastric region, anxious unrest, hiccoughing, Hippocratic facies, vomiting, increasing rapidity of pulse, and finally, by evidences of collapse. All these signs, associated with the fact that the peritoneal cavity had been opened

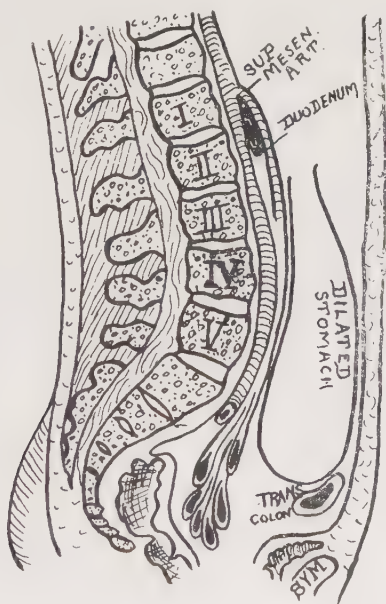


FIG 2.

Sagittal section showing compressed duodenum, dilated stomach, + intestines caught and imprisoned in the pelvis (Finney)

previously furnished excellent grounds for a diagnosis of postoperative peritonitis. The only symptoms that weighed in a measure against the diagnosis of peritonitis, was the moderately free passage of flatus, and the absence of both abdominal tenderness and rigidity. The diagnosis of acute dilatation of the stomach was made on the distinct outline of the dilated stomach against the anterior abdominal wall, and the absolute disappearance of this outline immediately following the vomiting of a large quantity of dark colored fluid. The absence of peritoneal infection, and

the presence of acute gastric dilatation may be assumed fairly, to have been confirmed by the course of the disease.

The practical crux of the whole question of acute dilatation of the stomach, lies in the close resemblance of the disease to peritonitis. The mortality in 102 cases of acute dilatation, collected by Conner, was 72.5 per cent. Unfortunately, as is well known, the mortality following peritonitis is also high. Well directed treatment affords gratifying results in both these diseases. Treatment based on a failure to differentiate between the two, however, often leads to a fatal outcome. The modern treatment of peritonitis demands that the toxic intraperitoneal exudates be kept away from the open lymphatic stomata that dot the under surface of the diaphragm, by using the so-called Fowler's position (head high, pelvis low). To reverse this position in a case of beginning peritonitis, would mean to gravitate the toxic exudate toward the diaphragm, thus favoring absorption of the toxins, rapidly, before the organism had time to call its complicated mechanism of immunization into play. With acute dilatation of the stomach, conditions are just the reverse. Among the many moot points in the etiology and pathology of this condition, one fact stands out clearly, namely, that in a very large number of cases, the duodenum is compressed by the root of the mesentery, which is held taut over it by reason of the fact that the intestines are crowded into the pelvis, and held there by the dilated stomach. Such being the case, we can hope to release the intestines from the pelvis only by elevating this part of the body and lowering the head of the patient; in other words, by using the Trendelenburg position. To put the patient in Fowler's position would be the surest possible way of throwing an added guard around the already effectually imprisoned intestines.

Granting then, that the treatment of the two conditions, acute dilatation and peritonitis, varies diametrically, is it possible to determine definitely, when we are face to face with one or the other disease? Connor is undoubtedly correct, when he says that, "Acute dilatation is not difficult of diagnosis, if the possibility of its occurrence be but held in mind". Yet, a consideration both of my own case, and of those cases recorded in literature in which a diagnosis of peritonitis was not disproved until autopsy, forces the conclusion that a differential diagnosis may be extremely difficult, and at times, impossible. A factor of the utmost importance in the differentiation lies in being able to determine whether the abdominal distension was *primarily* in the epigastric region. Ordinarily, with simple meteorism, the epigastrium is the last spot on the anterior abdominal wall to bulge, owing to the rigid resistance offered by the flanking costal arches. When the stomach dilates, however, even as the result of a simple acute indigestion, it causes a rounding out in the epigastric region. It is the observation of this early epigastric distension

that is of such vital importance in diagnosing acute dilatation of the stomach. The symptom is transient, and it may take only a short while for the stomach to assume such proportions that it distends the whole abdomen symmetrically, as do the paretic intestines in peritonitis. The case under discussion brought to mind how frequently, during my hospital internship, I was called to relieve postoperative distension in patients who had been operated upon for hernia. In a large proportion of these patients the distension was confined to the epigastric region. It was our custom in hernia cases to apply a very tight starch bandage embracing the lower abdomen and the thigh of the side operated upon and we used to think that the distension showed itself in the epigastrium, because the lower abdomen was compressed by the tight bandage. I now feel firmly assured that many of these cases were purely gastric in origin, despite the fact that I cannot recall an instance in which any threatening symptoms of a serious nature occurred.

And this brings us to the concluding point of the influence of tight abdominal binders and bandages as a causative factor in acute gastric dilatation. Several authors (Buzzard, Kelling and Willett), have called attention to the coincidence of acute dilatation of the stomach, and the wearing of plaster of Paris corsets, but I can find no mention in literature of the significance of tight binders or bandages applied after operation. A consideration of the lower half of the trunk demonstrates with what ease the mechanical hindrance of a too snugly applied dressing may predispose to the condition under discussion. This region may be divided into three areas:—1. The upper trunk area, made up of the lower part of the rigid chest wall. 2. The middle trunk area, made up of the yielding abdominal musculature. 3. The lower trunk area, made up of the rigid pelvic walls. An abdominal bandage then, if it be applied tightly, encounters firm bony counterpressure at its upper and lower parts, but presses inward that portion of the abdominal wall lying between the ribs and the pelvis. In other words, a tight bandage causes a partial hour glass constriction of the abdominal cavity, the lower bulb of the glass corresponding to the flare of the pelvis. It is easy to conceive how loop after loop of intestine might work its way gradually into the pelvis, by means of peristalsis, and it is equally easy to comprehend the difficulty encountered by these loops in working their way out, owing to the constriction in the abdominal wall, above them. If we grant the possibility of such a sequence of affairs, we have at hand, to say the least, a possible factor in the imprisonment of the intestines in the pelvis. This imprisonment furnishes a cause for the tightening of the mesentery over the duodenum, and therefore for the consequent gastric dilatation, which, in its turn furnishes a further bar to the return of the intestines to their normal situs. It must be borne in mind, that when a bandage or binder is applied

immediately after operation, while the patient is still under the influence of the anaesthetic, and the abdominal musculature relaxed, constriction is much more easily accomplished than it could be in a non narcotized patient.

As was previously stated, no attempt is made here to discuss either the entire literature, or the moot points of acute dilatation of the stomach. The object has been rather to present a case that illustrated the possibility of establishing an early diagnosis, to emphasize the pernicious effect of tight abdominal bandaging, to call attention to the importance of early inspection of the abdomen after operation, and finally to demonstrate the efficacy of gastric lavage combined with postural treatment as means of overcoming the disease.

BIBLIOGRAPHY.

A very comprehensive bibliography is furnished by the following four papers: Gastro Mesenteric Ileus. J. M. T. Finney, *Bost. Med. and Surg. Jour.*, Aug 2d, 1907. Acute Dilatation of the Stomach and Its Relation to Mesenteric Obstruction of the Duodenum. L. A. Conner. *The Amer. Jour. of Med. Sciences*, March, 1907. Ueber Post Operat. Arterio Mesenterialen Darmverschluss an der Duodeno—Jejunalgrenze, etc. H. Zade, *Brit. z. Klin. Chir.* Bd. XLVI, page 388. Die Akute Magenerweiterung. Sammel Referate. Dr. Neck, *Cent. f. d. Grenz. d. Med. u. Chir.*, Nos. 14, 15, 16 and 17, 1905.

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URETHRITIS AND COMPLICATIONS.

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The things that may be said of the subject assigned, "Urethritis and Complications," are so numerous that a thesis would exceed by many minutes the time allotted. I have, therefore, taken it upon myself to create a mechanical conception of the urethra and adnexa, in order to enunciate principles, which, when employed, have proved to be of practical value in treating successfully diseases of this portion of the human anatomy.

Such a conception demands not only a definite mental picture of the parts involved, but also a knowledge of their functions and uses, so that one may pull apart, systematically, as a watchmaker does a watch, this portion of the human anatomy and demonstrate, step by step, the soundness or imperfection of each portion of the genito-urinary mechanism. Then the causes of the disturbances which send the patient to us, if they can possibly be ascertained, will become self-evident, and a rational remedy suggest itself that will be within the facilities of the individual physician to apply. This I shall attempt to prove.

Gentlemen, how many of you, for instance, have a working knowl-

edge of the genito-urinary tract—its length, distensibility, shape, caliber, etc.? Is it always patent? Most of all, what is the value of such knowledge?

To demonstrate, I must speak in a general way of some of the pathologic conditions encountered. Conveniently, they may be classified as follows:

(a) Inflammation, acute, whose characteristic symptoms are simply the cardinal symptoms of inflammation—heat, pain, redness, swelling, and impaired functions, modified by the structural characteristics of the parts involved; causes—micro-organisms.

(b) Inflammation, chronic; a condition that results from acute in-

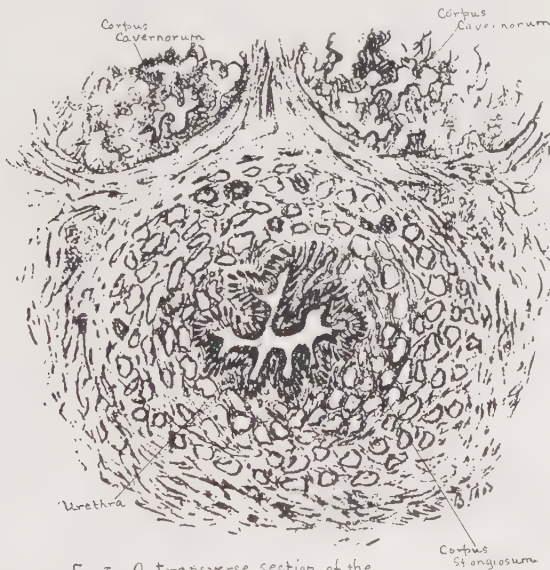


Fig. I. A transverse section of the normal male Urethra.

flammation; i. e., intense congestion, ulceration, granulation, epithelial thickening, cellular infiltration of the sub-epithelial tissue, that may persist as such or be followed by contraction, a condition that may involve the whole genito-urinary tract, though more usually locating itself in one or more areas of various sizes.

(c) Mechanical injury that results in true cicatricial tissue.

Now turning to the diagrammatic sketch, Fig. 1, we have a drawing of the normal urethra, a transverse section of the penis two inches behind the gland. Note the infoldings of the mucous membrane. The length of the average male urethra is nine inches or 23 c. m., with mucous membrane irregularly enfolded the whole length. The capacity of the anterior urethra alone, when distended, is on an average 25 cc., or seven

drams. Do not these facts suggest that it will take a considerable volume of water to wash out thoroughly six or nine inches of such infolding? In other words, the small urethral syringe, the average capacity of which is two drams, or five cc., is at best a makeshift remedy, since the fluid it



FIG. 2.—A section of figure 1 greatly enlarged.

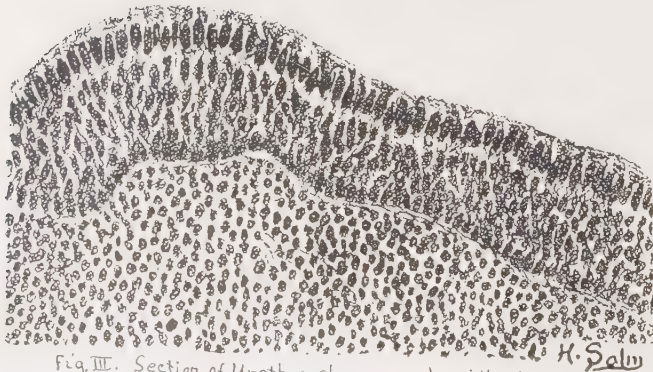


fig. III. Section of Urethra showing sub-epithelial cellular infiltration in its earliest stage.

injects cannot, without injury, be bactericidal in the true sense of the word, and the amount it contains will not mechanically cleanse.

Fig. 2 is a section of Fig. 1 greatly magnified to show more clearly the histology. Here you see the layer of cylindrical epithelium surround-

ed by blood vessels and sections of the urethral glands that are racemose glands. (See Fig. 7, E.)

In Fig. 3 we have a section of the urethra showing sub-epithelial cellular infiltration in its earliest stage, composed of round cells and possibly a few proliferated connective tissue cells, the treatment for which, if they do not resolve in the normal course of events, is pressure.

Fig. 4 shows a later result of such infiltration where treatment (pressure), has been inefficiently applied, or not at all. So the pathological process has progressed to the stage of connective tissue formation; in other words, a true stricture.

Fig. 5 shows a section of the roof of the urethra with round cell infiltration that also exists in the tubular ducts of the follicles. This is

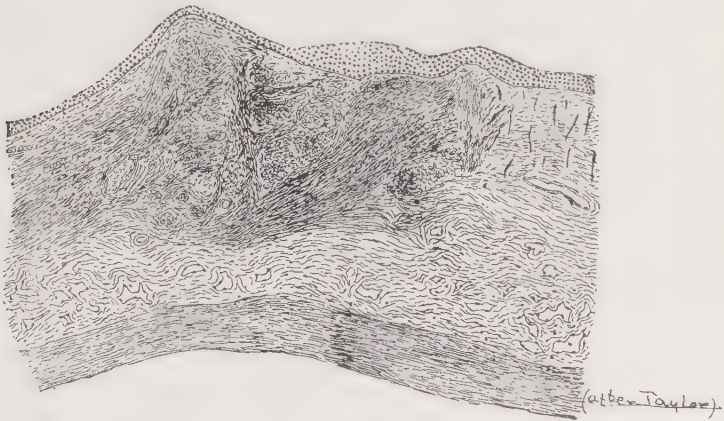


FIG. 4.—Showing a section through a firm inodular stricture, the connective tissue being so dense as to resemble cicatricial tissue. A true stricture, the later result of infiltration.

presented to show inflammation and proliferation of the epithelium of one of the urethral follicles with the round cell infiltration about its walls. Can anything but pressure, applied vertically, evacuate the contents of such a follicle and cause absorption of the infiltrating cells? A sound that just brushes past the opening of the duct will not accomplish this, but a dilator will.

Before elucidating the application of these drawings to the subject in hand let us proceed to view a diagrammatic drawing (Fig. 6) of the whole genito-urinary tract, exhibiting two routes to the urethra; route one, from the kidney, through the ureter into the bladder, the opening of the ureter being represented by the white spot A; the bladder, by the dark circular area which runs into the urethra. Route two, from the testes, through the epididymis and the vas deferens that passes round through the ab-

dominal cavity back of the bladder and opens into the reservoir B, the seminal vesicles, that terminate in a duct which passes through the prostate into the urethra. In the prostatic portion are other openings, those of the prostatic ducts, about 20 in number. Proceeding further along the urethra, we perceive two glands, C, of considerable size, opening into the urethra, called Cowper's glands. Moreover, the innumerable openings of the glands of Littre or the crypts of Morgagni in the anterior urethra must not be forgotten. So at a glance the connecting avenues of the whole genito-urinary system can be seen.

What knowledge of practical value is to be deduced from retaining

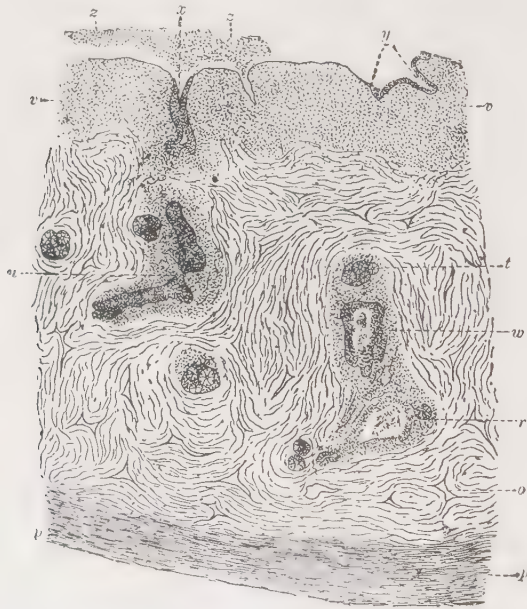


FIG. 5.—Showing a segment of roof of urethra, with round-cell infiltration of the mucosa and tubular ducts of follicles.

such a mental picture? Let us, for instance, start at the usual point of infection, the meatus, ascertain the route of a gonococci invasion, and we will then perceive. We know that the germ travels like fire along the epithelial cells. By the way, if this is true is the compressor urethrae, a voluntary muscle shown in Fig. 6, going to prevent the invasion of the posterior urethra? No! In 80 per cent or 85 per cent of specific urethritis there is an invasion of the posterior urethra, another factor against the hand syringe that holds only two drams. However, coming back to the subject proper, the germ may travel as follows: From the meatus, along the urethra to one or more of the glands of Littre, Cowper's glands, mem-

branous and prostatic urethra, from thence to the prostatic ducts, terminating here; that is in the prostatic urethra, and not going to the bladder, as this organ is not infected by the gonococci, unless the lining membrane is injured mechanically, or by previous inflammation, because the lining membrane, mis-called a mucous membrane, is in the true sense of the word, a protective, not a secreting membrane. The route then chosen is

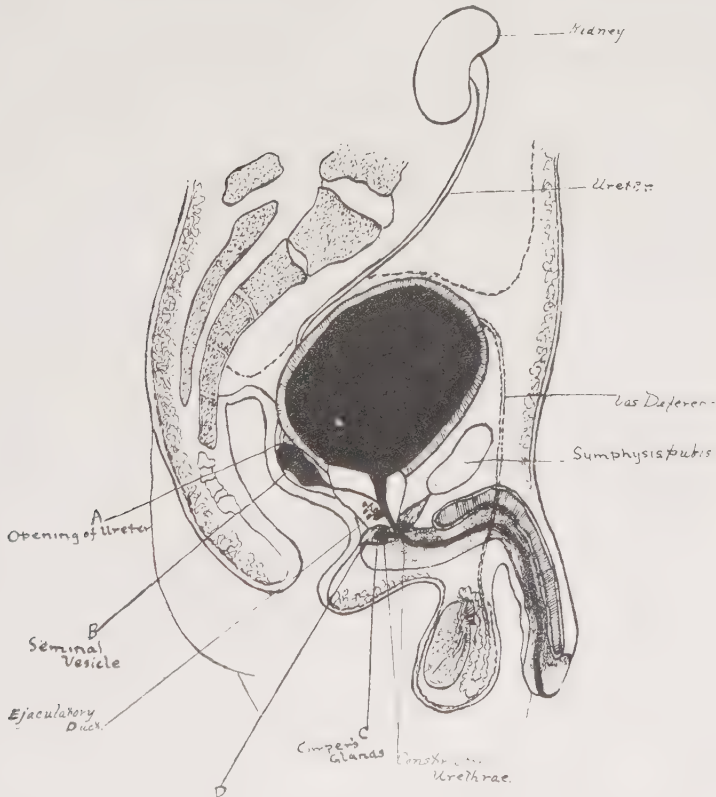


FIG. 6.—Diagrammatic drawing of the whole genito-urinary tract.

along the duct of the seminal vesicle, into the vesicle and thence along the vas deferens to the epididymis and testes.

We have traced the routes of infection. What does it teach? A means of ascertaining conclusively how far infection travels and where it is located—a factor essential to the application of rational and successful treatment. As proof, picture a chronic case of urethral discharge, one that presents the aggravating morning drop that the gallant Frenchman calls "La Gout Militaire." You have all seen this drop. All heard of it. The question is, "Where does it come from and how shall we locate its

source?" With your permission I will attempt to demonstrate my method of procedure, which I have employed for five years, and though simple it is not found in text-books. In outline it is as follows:

The patient shall retain his urine for at least four hours previous to examination in order that the secretions of the urinary tract may accumulate in sufficient quantities for diagnostic purposes. Slide specimens are then taken of the secretion in the anterior urethra. The anterior urethra, that is, from the meatus to the sphincter urethrae, is washed clear by means of a Valentine irrigator used with a normal salt solution, and the washing placed in an ignition tube, Fig. 7, which we shall call No. 1. The patient then voids his urine in three similar tubes, numbered 2, 3 and 4. The presence of shreds in tube No. 2 denotes posterior urethritis, as the fluid that first passes will cleanse this portion of the tract. The amount



FIG. 7.—Glass ignition tube (12 inches by 1 inch.)



FIG. 8.—Cast of normal male urethra.

of inflammatory material in tube No. 3 denotes the severity. The presence of inflammatory material in No. 4, whether the bladder or prostate is involved. When a very warm solution is used it will cause tenesmus, which frequently results in the expulsion of the prostatic secretion and some of the secretion of the seminal vesicles. The patient is again irrigated, this time posteriorly, with a normal salt solution about 600 cc., 60 cc. of which are voided in the ignition tube, which we shall call tube No. 5. This denotes how free from discharge the whole urethra is from the meatus to the bladder, and acts as a means of comparison with the following:

With the solution in the bladder the patient is placed on his back, the seminal vesicles and prostate outlined and stripped, and then a slide specimen is made of some of the secretion expressed at the meatus. If

the prostate only has been massaged, examination of this secretion will demonstrate this by the presence of Betcher's crystals, etc. If the secretion in the seminal vesicles has also been expressed, it is demonstrated by the presence of spermatozoa. The patient now voids the contents of the bladder, which is the remaining portion of the normal salt solution, into a glass urinal. We will then see what has been squeezed from the prostate and seminal vesicles and be able to judge from the megascopic appearance the extent and character of their involvement in the inflammatory process, by comparing with tube No. 5. Could an examination be more clear, simple, or decisive? Yet its real value cannot be shown here, for there is no time to give the clinical and microscopic significance of such secretion.

But you will say that by this procedure only two factors have been ascertained—the location of the infection and the character or presence of invading micro-organisms, but not the character of the pathologic processes. This is true, but the means of ascertaining this fact, as by *bougie-a-boule*, the anterior and posterior urethroscope, etc., is not in the province of this paper.

But should we be satisfied to treat genito-urinary diseases to any degree, knowing only the route which the inflammatory process may take, and not the topography; that is, the shape, size, dilatibility of the canal, etc. The answer is simple; it is "no," for such limited knowledge will not be of practical value if successful treatment is to be instituted. As proof, look at the shape of the normal urethra in Fig. 8. What do we see? It is not a tube of even calibre, but varies, being narrowest at the meatus and in the membranous urethra. Moreover, if we look at Fig. 1 we see that it is always collapsed, and not patent, as one is apt to imagine.

Let us employ these two facts—one, that the tube is not of uniform calibre; the other, that it is collapsible. Again looking at the cast of the normal urethra, Fig. No. 8, we may perceive that its calibre is unequal, that it is narrowest at the meatus and membranous portion and much larger at the bulb. We know actually that it is only distensible to 40 degrees French, in the membranous portion, and 45 degrees in the prostatic portion, to say nothing of the variation that exists in the bulbous portion of the urethra. If this is so, it is not hard to realize why an ordinary sound, which is of uniform diameter, in dealing with a chronic condition or ulceration similar to Fig. No. 3, situated, say, in the prostatic portion, causes one to prefer a dilator. With a dilator you may stretch the prostatic urethra to its maximum and obtain results. With a sound you could not do so, for one could only be passed that is the size of the meatus, the smallest diameter of the urethra.

But with such a varying diameter you may rightly say even a dilator would be inefficient in some cases. This is true, and explains why many

cases of the morning drop are not successfully treated. But why not use the knowledge possessed and a little ordinary horse sense, as it were, and after inserting the sound or dilator into the urethra, apply external pressure with the finger over the pathologic area? Would one not get results? One certainly does!

Other practical facts could be mentioned, both in treatment and in diagnosis, that would tend to prove the value of a mechanical conception of the genito-urinary tract. I have stated only two facts; one, the means of making a diagnosis; the other, a trick, as it were, in treatment; and in so doing I have hoped to aid in advancing the cause of genito-urinary diseases by demonstrating that actual knowledge and reason must supplant empiricism—the snap diagnosis, the hand injection and small syringe—if urethritis and its complications are to be successfully treated.

ETIOLOGICAL FACTORS OF GONORRHOEAL ARTHRITIS.

BY H. W. SMITH, M. D., Manila, P. I.

Under this title are included only those cases in which the gonococci are demonstrable. Pyogenic organisms may accompany or replace the gonococci, and in this case the usual serious exudate is purulent. Certain pulmonary affections cause an arthritis not of bacterial origin, and it is said that the toxins of gonorrhoea may produce arthritis and iritis; but it is certainly difficult to believe that a soluble toxin, and one which has eluded discovery, can localize itself in one joint. It is rather to be believed that the organism was not found in some instances owing to the fact that its habitat is frequently in the tissues beneath the serous surface. Simple arthralgia, also said to be of toxic origin, is in fact due to actual infection of a tendinous insertion near a joint.

Gonorrhoeal arthritis is commonly met in two forms: First, the *synovial*, presenting the symptoms of a synovitis with fluid. The organisms are consistently found in the serous exudate or in the flakes of fibrin adherent to the synovia. This variety yields promptly and permanently to lavage of the joint. Second, the *periartritic*, presenting a fusiform swelling especially marked in chronic cases. There may be some fluid in the joint, but the most prominent change is the thickening of all the structures about the joint, the tendon sheaths and bursae being involved. This variety resists treatment most obstinately.

In making a diagnosis the chronic stages are easily confounded with atrophic arthritis and with chronic infectious arthritis, including certain affections loosely classed as chronic rheumatoid arthritis, in which various unknown organisms have been found. Both gonorrhoea and non-specific

diseases of the joints are so common, that the presence of clap shreds in the urine is not sufficient evidence on which to establish the diagnosis.

We may explain extending infections of the genito-urinary tract and peritoneum by continuity along natural channels, by submucous lymphatics, and by the ascending currents in mucous canals described by Bond. But to fulfill the postulate of demonstration of the cocci in joints, it is conceivable only that the organisms have entered the circulation. Once there, their lodgment is determined by the same factors which are operative in pneumonic, tubercular, or pyogenic arthritis, namely:

- a. A slowness of the capillary circulation.
- b. Trauma. It is observed that the susceptibility of individual joints to the affection is proportional to the respective frequency with which they suffer injury.
- c. The predilection of the gonococcus for joints, the joints being numerically second only to the genito-urinary tract in the list of complications.
- d. Tendency in organisms to variation, certain strains of the same organism showing a marked preference for the joints. This tendency is especially noticeable in streptococci and is present in gonococci.

More important than the study of the forces influencing settlement in the body, is the determination of the means by which entrance is gained. This penetration may be accomplished by intercellular absorption without solution of continuity, or through an open ulceration. We know that the gonococcus invades the lymphatics and in this way gives rise to ascending infections and suppurating inguinal and iliac glands, while we do not know that it can penetrate an uninjured capillary. And the frequent association of multiple foci, and the not rare occurrence of a universal infection with an organism normally not viable in the blood, point to a massive invasion. This can take place only from an open ulcer or by the rupture into a vein of a gonorrhoeal abscess. The latter event, although common in tuberculosis, is rare, if not unknown, in gonorrhoea, and the open ulcer must be regarded, at least by clinicians, as the only source of absorption. This implication of the open ulcer is in accord with our present knowledge concerning systemic invasion by other bacteria, and there are numerous observations on gonorrhoea supporting this view. They are:

1. Arthritis rarely occurs in the adult before the declining stage, during and after which the ulcer is the active focus of the disease, whatever factors contribute to its persistence. It seems to occur, too, in the male only when the posterior urethra is involved.
2. Arthritis rarely occurs when the urine shows only a finely divided precipitate, but is always accompanied by clap shreds, which have their origin in a gross lesion.

3. Arthritis may follow immediately the passing of a sound, by which procedure presumably the mouths of vessels have been opened.

4. Absorption is probably possible of indefinite repetition, and may be continuous, since the cure of the joint is obtainable only after the urethral focus is healed. This hypothesis of repeated absorption is important for the understanding of the attacks on successive joints and the recurrent lighting up of quiescent ones; for, while it is possible that the original joint may furnish the atrium for subsequent invasions, it is observed that when other joints are infected later, there is a coincident access of symptoms in the joint first involved, and this would seem to indicate a fresh invasion.

5. As far as we know the gonococcus has no soluble toxine and it provokes no antibodies. An intracellular toxine has been isolated, but its use in the urethra is always attended by a severe reaction not diminishing with repeated inoculations and not conferring any degree of immunity. The quiescence of the gonococcus in a chronic urethra is the result of a mutual tolerance and not of any acquired resistance. Hence its presence in the urethra without subjective symptoms is no indication of equal tolerance on the part of the joints, or of protective substances in body fluids or cells; and immunity from arthritis is gained only when the urine is free from shreds.

In the *Annals of Surgery* for June, 1905, Eugene Fuller cited fifteen cases of gonorrhoeal arthritis, twelve of which were associated with vesiculitis. Cure was obtained after excision of the vesicles. No other treatment apparently was tried and the variety of arthritis was not mentioned. The "Medical Record" of August 26, 1905, spoke favorably of the method in an editorial, and it was because, in a considerable experience in genito-urinary clinics, I had seen no case of associated arthritis and vesiculitis, although I had seen many of each, that I have kept separate records of all cases of gonorrhoea or its complications that have come under my care since July 1, 1905. In examining a patient for vesiculitis, the prostate was massaged and the urethra and bladder thoroughly irrigated. The bladder was then filled, catheter withdrawn, bladder partly emptied to wash urethra, and the vesicles milked. The fluid was passed and centrifuged and the sediment examined microscopically in fresh and stained specimens.

Total number of cases of gonorrhoea..... 46

Total number of cases of vesiculitis..... 4

Total number of cases of arthritis..... 5

In no case of arthritis was vesiculitis found, but in each there were ulcers in posterior urethra. In three cases well defined strictures were undoubtedly the agents preventing healing of the ulcerations. That vesiculitis cannot be the only source of arthritis is well shown by the not

infrequent occurrence of gonorrhoeal arthritis in women and female children, and its appearance in cases of ophthalmia where a urethritis can be excluded. Again, instillations and irrigations of silver nitrate are the most effective means of treatment; these do not affect a vesiculitis but do cure an ulcer, or at least by a coating of precipitated silver prevent further absorption.

The conclusions that seem justified, although tentatively in consideration of a few cases which I am in a position to report, are as follows:

1. Vesiculitis is probably not often the focus of absorption from which arthritis arises. The suggested treatment is therefore irrational; the incidental sterilization of the individual and the severity of the operation are grave considerations making the treatment serious out of proportion to the gravity of the disease; and vesiculitis, which may occur in the course of any gonorrhoea, whether or not believed to be the source of arthritis, can be cured promptly by simple methods.

2. Arthritis in the male is probably due to ulcerations in posterior urethra by which systemic infection is made possible. The prevention and cure of the arthritis depend on the early adoption of treatment directed to the urethral foci and the conditions favoring their persistence.

3. In the female, the failure of arthritis to develop when the infection is limited to the external genitals makes it probable that in them absorption is from an area homologous with the deep urethra of the male.

4. Rarely, other sources must be allowed in both sexes.

MOUNTAIN CLIMATE OF NEW MEXICO.

By FRANCIS T. B. FOST, M. D., Las Vegas, N. M.

Without disputing the economic importance of home institutions for the treatment of tuberculosis of such patients, who either cannot change climate or for whom the mountain climate is contra-indicated, and without denying the fact that in many instances the diseases may be arrested under home treatment, we cannot overlook the great lesson taught by the experience of many years, which has proven by indisputable statistics that a higher percentage of cures of this dreadful disease is produced by a prolonged stay in the higher altitudes.

The teachings of Williams, Amrein, Ruegi, Egger, Liebermeister, Stephani, and others of a few years ago stand unshaken today and are substantiated by daily experience. But we certainly cannot go as far as Liebermeister, who considers cures in low lands only mere possibilities. Altitude and climate must be separated (Jouccoud). While some of the effects of altitude are the same everywhere e. g. diathermancy and chemic

and physiologic influences of solar and ultra rays the secondary effects like polycythemia followed by hematopoetic and tissue changes, with consequent protoplasmic regeneration, are more marked in different climates, depending upon the mean humidity and temperature. Furthermore, the index of air-pressure is different in a humid and arid climate. Naturally the contrasts of winter and summer must vary accordingly.

As compared with the Alps, the Rocky Mountains in Colorado, Mexico and New Mexico, the favorable verdict will fall to the last named territory, because it exceeds the others in lessened contrasts of season, while the index of humidity is the most even during the year.

New Mexico has been erroneously referred to as a wild country or mountainous desert. True, it has not the large cities of the Alps and Colorado, yet in scenery it stands second to none. It has not the historical monuments of Europe, where history is old, but it makes up by one much more thrilling with monuments of an age by-gone and forgotten. The desolated towns and ruins of the Pueblos, with their ancient pottery and sculpture, speak for a relatively high civilization at a time when the ancestors of William Tell still lived in the "Pfahlbauten of the Bodensee."

Against the awe-inspiring glaciers, with occasional cold-storage mountain climbers, New Mexico offers stretches of arid desert, where the bones of the victims of thirst lie bleaching under the cloudless sky; valleys for which there can be but one designation, viz: gardens and forests as balmy as the famous Black Forest. In place of the "Jodelnde Sennerin" we have the shouts of the daring cowboy and the redskin with his aboriginal costumes and customs.

The winters in New Mexico are milder than in the Alps and Colorado, while in the northern parts the summers are cooler, thus offering a more even temperature the whole year around. This is especially true of the eastern slope, which forms a horse-shoe from the Raton Pass to the Glorietta pass at an elevation of about 6,000 to 6,500 feet.

In the southern part of New Mexico we also have evenness of temperature and low humidity, the latter to such an extent that we call that section arid, thus offering the combined therapeutic effect to altitude and desert.

These facts lessen the usual objections or contra-indications to altitude because the gravity of the rarified atmosphere is such as to prove of benefit even to a patient with extensive lesions. The benefit is further enhanced by the hematopoetic processes and cellular regeneration, which is increased by greater water abstraction while the heat abstraction is diminished to such a degree that even enfeebled individuals, who would not be benefited in the Alps or Northern Rocky Mountains, and who are ordinarily sent to Egypt or Arizona, may have their lives prolonged in New Mexico, while suffering from the consequences of the debilitating heat.

Contra-indications to the altitude of New Mexico are practically only two: first, such cases in which the chest expansion due to fibrosis or extensive cavitation is reduced to such a minimum that the available functioning area cannot secure sufficient supply of oxygen from the air; second, where there exists an insufficiency in the pulmonary circulation that the increased work of the lungs would overcome the heart compensation. Such cases are rare. Altitude often has been accused of exciting or augmenting nervous disturbances, especially during the period of acclimatization. Yet the benefits of this relatively dry altitude by far overbalances the slight inconvenience of nervousness.

The health resorts of New Mexico are not very numerous, the United States Government owns two—one at Ft. Stanton for the Public Health Service, and one at Ft. Bayard, for the Army. On the eastern slope mentioned above, between the Raton and Glorietta Passes, at an altitude of about 6,000 feet, the scenery is especially attractive, and there is a number of small towns, of which the best known are Raton and Watrous, with Las Vegas representing a small city. I quote from a report from the Secretary of War to the House of Representatives, in 1902: At the altitude of Las Vegas the air contains only about one-half as much moisture as that at sea line, and even there it averages for the year less than one-half the moisture it can contain (mean relative humidity being about 45, and as low as 20 at times). The rainfall is about 18.25 inches a year, two-thirds occurring in the five warmest months. Rain in winter is practically unknown, all precipitation being a snow.

The average of the total precipitation in the three winter months during ten years, at a point near this town, was 1.09 inches of water, all as snow. These statements show a dry winter and spring. November is also very dry, the greatest rainfall being at the season when wet can most easily be tolerated by invalids. The percentage of sunshine is high, an average for three years showing 280 clear days, 60 partly cloudy or fair days, and only 25 cloudy days, the chief cloudiness of the year occurring in July and August. (In California the greatest rainfall and cloudiness occur in midwinter.)

In the colder winters at this altitude (6,500 feet) the thermometer will go below zero occasionally. In the hottest summers it may reach 90 degrees, rarely higher. The summers are very delightful, the air being dry except just during the afternoon or night-showers, and the nights always cool enough for blankets. The heat of the day is chiefly from 11 a. m. to 4 p. m., and one step from the clear sun into the shade brings coolness at once. One interesting fact is the infrequency with which the great transcontinental storms cross New Mexico; indeed, any severe storms are very rare; tornadoes are utterly unknown, and in Las Vegas the other family pests of much-visited regions (the mosquito and

the flea) do not exist, nor is there any malaria. The climate is typical of the Rocky Mountains, highly stimulating and, on the other hand, in no way tropical. Las Vegas became famous of late on account of an attempt by the different fraternities to establish there one giant sanitarium for their tuberculous members.

Experience has shown that it is always the most prudent for those in whom the disease has been arrested to remain in the climate in which this cure has been effected, and even in this regard New Mexico offers advantages.

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The Territory being new and sparsely settled, has inducements in agricultural, industrial and commercial exploits for those who must live within her borders, a circumstance the importance of which cannot be underrated when the question of earning a livelihood on the part of the patient is to be considered.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

OBSERVATIONS ON ARTERIOSCLEROSIS.—Heinemann (*Medical Record*, No. 17, 1907). Arteriosclerosis before old age is a disease of exhaustion and of excess. It is increasing steadily in America. Pressure in ordinary physical or mental daily labor, especially in neurotic subjects, acts to cause arteriosclerosis. Certain distinct types present themselves pathologically. The "specific type" involves the aorta generally, and the arteries of the nervous system. It generally leads to aneurysmal formation. The "post-syphilitic" type occurs usually in the ordinary diffuse variety without any specific characteristic lesion. The "senile and labor type" involves the lower extremities, most commonly, and is largely accompanied by calcareous change. The "renal type" is the best understood with its granular kidney, general arteriosclerosis, hypertrophy of the left ventricle, etc. The "myocardial" type is often complicated by embolism and cardiac failure.

The author reviews the symptoms presented by the various types of arteriosclerosis and enters into a consideration of the diagnosis of the disease. He lays some stress upon the pulse tracings and blood pressure as aids to the diagnosis. The treatment is largely one of daily exercise, of the proper sort, baths, diet, which he considers by far the most important of the internal remedies. He speaks of the iodide of potassium, Trueneck serum, nitrites, nitro-glycerine, etc., as adjuvants in the treatment of the disease. He lays great stress on efforts to overcome the anemia.

A CASE OF A POSITIVE AGGLUTINATION REACTION IN ICTERUS.—Christian (*Boston Med. and Surg. Jour.*, No. 17, 1907).—Very soon after the introduction of the agglutination reaction as an aid in the diagnosis of typhoid fever it was noticed in certain individuals, clinically not ill of typhoid fever that their serum also agglutinated typhoid bacilli.

Gruenbaum first pointed out that such an agglutination often occurs in cases of icterus. The author, based upon results of his investigations, believes that there is insufficient evidence for the hypothesis that biliary constituents in the blood serum are the causes of the positive agglutination of typhoid bacilli in icteric cases. The hypothesis that in most cases the reaction is due to bacterio-agglutinins generated independently of icterus is supported by a consideration of the available cases. These bacterio-agglutinins may result from a previous attack of typhoid fever from the presence of typhoid bacilli in some way related to the biliary disturbance, or possibly from closely related bacteria causing a group agglutination reaction.

BLOOD EXAMINATIONS OF ASTHMATIC PATIENTS.—Salecker (*Muenchener Medizin Wochenschrift*, No. 8, 1907).—Made frequent blood examinations of a series of eight cases of bronchial asthma and found that in the intervals between the attacks there is a variation of the white blood corpuscles, in that the polynuclears are diminished as low as 40 per cent., the mononuclears increased to about 45 per cent. and the eosinophiles as high as 12 per cent. Of the polynuclears there is an increase of the double nuclear forms. The mononuclears and the transitional forms are usually greatly increased.

Immediately following the attack there is an absolute increase of leucocytes, most marked in the polynuclears, which may increase to 80 per cent. or more. The mononuclears and eosinophiles undergo an absolute decrease, and at times the eosinophiles seem to disappear entirely. After the attack is complete the polynuclears decrease and the mononuclears and eosinophiles again increase. In the acute asthma attacks the variations are more marked than in the chronic. One is accustomed to find such marked blood reactions only where there is a chemical or bacterial irritation. However, in certain neuroses, as in neurasthenia, hysteria and epilepsy, there is often a marked increase of the eosinophiles.

THE SALT FREE DIET IN CHRONIC PARENCHYMATOUS NEPHRITIS.—Peabody (*Medical Record*, No. 10, 1907).—During the past few years a number of observers in the treatment of chronic parenchymatous nephritis have administered food containing a minimum of sodium chloride, especially in cases of anasarca. The literature is not voluminous, but those who have tried this treatment are enthusiastic about it. The author finds that in many cases soon after the beginning of the treatment, oedema, and with it body weight, will diminish rapidly. The best results are obtained with the patient at rest in bed.

Miller has found that only small amounts of sodium chloride are essential for the animal economy and Bunge states that only one or two grams are necessary daily. Most people, however, consume ten or twenty grams, and the excess is eliminated chiefly through the kidney. Miller finds that in patients with moderately severe nephritis with oedema, that the chlorides are retained, especially if ingested in large amounts. Following this the oedema becomes more marked and the albuminuria increases.

The author reports a series of cases in which he has applied the salt free diet with admirable results. He found in many cases that the headache and dyspnoea were relieved, the fluid disappeared from the serous cavities without tapping and oedema vanished. The diet employed is very similar to that commonly prescribed for nephritis, eliminating only those that naturally contain salt and add no salt at all. This works no hardship upon the patient. On the contrary, prompt relief is usually noted.

THE ROENTGEN TREATMENT OF MALIGNANT TUMORS.—Schirmer (*Centralblatt für die Grenzgebiete der Medizin und Chirurgie*, 1-2-3-4-5, 1907).—Presents a most exhaustive review of the literature on this subject, com-

prising some 250 literature references. The history of the treatment is discussed, together with a consideration of the reports of the various authorities on the subject. The consensus of opinion is that the treatment is valuable in superficial new growths, although they may cover a very large area, and that the treatment produces no pain at all. On the contrary, reduces pain, as well as the unpleasant odor emanating from the growth. The results from a cosmetic standpoint are often brilliant. The evidence of improvement occurs usually within two or three weeks and if not manifest within the first month, the treatment may be discontinued. In large tumors an operation should first be performed, and the x-ray then applied.

Bashford finds that a recurrence occurs in from 20 to 40 per cent. of the epithelioma. In cancer of the breast very satisfactory reports have been presented, both with reference to cures and improvement.

The author states that without doubt even in advanced inoperable cases of carcinoma, marked improvement is sometimes produced through the radio therapy. Even the mediastinal tumors following mamma-carcinoma may be favorably influenced by the x-ray. In the treatment of deep seated carcinoma, such as stomach, uterus, etc., no authentic cures have been reported.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

SOME GENERAL PRINCIPLES IN CONNECTION WITH PROTOZOA AS FACTORS IN DISEASE.—Stiles (*Jour. Amer. Medic. Assoc.*, 1907, April 20).

THE TRYPANOSOMES OF MOSQUITOES AND OTHER INSECTS.—Novy, Macneal and Torrey (*Jour. of Infect. Diseases*, vol. 4, No. 2).

With its clear and concise diction, Stiles' paper is decidedly worth reading for orientation about the general principles on which the trend of modern study of protozoic diseases is based by most investigators. The discussion on the definition of what protozoa are, may be omitted here, although the views given are perfectly sane and rational. The point insisted on is that the study of protozoa has only in a few cases led to a complete establishment of their life and their cycle of development, while in a great number of protozoic infections, lately discovered and studied, we are far from such a status as the ideas prevailing are founded only on analogies. This mainly obtains for the theories of the relation of the parasite to the first and second host. For malaria these relations are demonstrated to the smallest detail, while for yellow fever the study has made similar relations extremely probable; the idea that other protozoa follow in their cycle, which by analogy is assumed from the observation of the transmission (certainly, as has been already established, not always) by a second host, has become the object to which the study is in the first place directed. Stiles makes it clear that we have no positive

facts proving this; on the contrary observations made in this regard have been negative, showing that the second host, the transmitting insect, is only a facultative, not an obligatory, carrier, different from malaria. The transmission is only mechanical, not bound to a development and change in the parasite in the insect that only allows of transmission as in malaria. The speculations on the trypanosoma and spirochæte changes in the body of the insect have not been confirmed in any one of them. On the contrary, it can be easily shown that parasites of this character, when ingested into the stomach of a mosquito, will perish within a short time; that such insects, therefore, are able to infect the other host only for a short period after sucking blood from an infected individual.

The few observations published, in which seemingly a cycle within the mosquito was observed, have lost most of their evidential value by work done by Novy and his associates. Aided by his ingenious method of cultivating forms of trypanosoma Novy succeeded in demonstrating that trypanosoma infection is a very frequent occurrence in mosquitoes and other insects, and often escapes the microscopic examination, while the culture will demonstrate it. These parasites are specific for the species of insects examined, as is the human or bovine or horse trypanosoma for the respective species. This discovery is not new, but the extent of the occurrence of this condition was not known before. Much less had it been utilized for throwing light on the observations of alleged developmental changes of parasites ingested with human blood into the stomach of an insect. The importance of Novy's work lies in the demonstration of the necessity of the utmost carefulness in experimentation in order not to bring in relation these parasites to those that have been introduced with blood of an infected animal or human being. The difficulty is increased by the fact that single insects can be carriers of various infections, trypanosomes, spirochæte and proteosoma-like organisms. The same occurs in vertebrate organisms, where such infections can exist side by side. This finding is of great importance, as it bears on the weight of the work done by Schaudinn establishing the genetic and developmental connection of a proteosoma, trypanosoma and spirochæte in the life cycle carried out alternately in a bird (a species of owl) and in the common *Culex pipiens*. Schaudinn's interpretation of his observations was so convincing, his pictures so demonstrative, his former work on protozoa so classic and so generally confirmed, that it brought about a radical change in the systematic affiliation of protozoa or sporozoa. Trypanosoma was generally considered as only a stage of the cycle of a protozoon, like the plasmodium in red corpuscles for the human malaria that necessitated a sexual process in an insect to be transmissible to its first host again. It is hard to give up the beautiful interpretation of Schaudinn. Still, the work of Novy is so impressive in its objectivity that it at least ought to be made the stimulus to repeat with the same material that Schaudinn used his investigations, with constant attention to the sources of error, that have so clearly and definitely proved by Novy to be constantly present in it. The result will be decisive and will at the same time decide about the nature of spirochæte pallida. Writers on the latter organism have a fancy to adopt another name, *Treponema*, thus positively classing it with the protozoa. The fact is that Schaudinn's

work, which originally suggested this nature of the organism, has by no means been conclusive. In the absence of proof of biologic, morphologic or pathogenic differences between the other spirochætes and the pallida, the latter must remain a spirochæte.

The methods that led to Novy's results are exceedingly original and exact. They hardly allow in their correct application of a doubt of the conclusions drawn from them. The amount of work done on this subject is marvelous, and the manner in which the great difficulties met were dealt with and eliminated by experiment and original devices is admirable. It is work that in its character is the acme of exactness and objectiveness.

A STUDY OF THE INFLUENCE EXERTED BY A VARIETY OF PHYSICAL AND CLINICAL FORCES ON THE VIRULENCE OF CARCINOMA IN MICE, AND OF THE CONDITIONS UNDER WHICH IMMUNITY AGAINST CANCER MAY BE EXPERIMENTALLY INDUCED IN THOSE ANIMALS.—Cowles (*Brit. Med. Jour.*, 1906).—The extremely careful and numerous experiments of Clowes, made at the Buffalo Cancer Hospital, cannot be reviewed in detail. Only some of the most interesting and most important results can be summarized.

Primary tumors can be transplanted only with difficulty. With continuous transplantations their virulence increases and reaches at a time a definite height that is lasting; the rapidity of growth and the size the tumor reaches, increase with the increase of virulence. Spontaneous disappearance varies in reverse proportion to the degree of virulence. The larger a tumor becomes, the less is the chance that it will spontaneously disappear. Tumor cells are very resistant to the action of inorganic and organic poisons (bichloride, potassium, cyanide, etc.). The latter does not kill cancer cells even in doses that kill mice when injected with a mixture of both materials. Chemically, a large number of virulent tumors showed an excess of potassium and of protonucleids; little virulent or slowly growing growths yielded little potassium, but much calcium. Experiments based on this finding gave seemingly by injection of potassium salts, or by their administration by the digestive canal, a higher number of successful transplantations. As to immunity against tumor formation we refer to the following experimental results: Mice that spontaneously recover from a tumor are immune against the same form of tumor, and less susceptible to more virulent forms, than are normal animals. If the serum of mice, recovered from a tumor, is injected in mice on which a tumor grows, a certain influence on the growth of the tumor is observed in its retardation; an emulsion of tumor cells mixed with such a serum diminishes the growth and virulence of the resulting tumor. A mouse with tumor of the head is immune against inoculation of other areas, for instance, the tail, which permits the assumption that the serum of such animals contains protective substances. Tumor cells that are exposed to a temperature of 45 degrees C., or that have been in contact with concentrated chemicals, are prevented from growing; less virulent tumors are stimulated in their growth by exposing them 20 to 30 minutes to temperatures varying between 38 and 40 degrees C.; the gain is a

higher virulence. The author tried to immunize by the injection of nucleo-proteids obtained from tumors, but had no success in obtaining immunity. He compares the immunization of mice against carcinoma with the vaccination against smallpox, since of the animals recovering from the effect of an attenuated cancer, the great majority will not react on the later injection of fully virulent material.

SYPHILITIC ANTIBODIES IN THE SPINAL FLUID OF PATIENTS WITH PROGRESSIVE PARALYSIS AND TABES.—A Marie and E. Levaditi (*Ann. d' l'Inst. Pasteur*, 1907, No. 2).—The method of Wasserman, Neisser and Bruck, built up on the principle of complement binding, worked out by Bordet, is successful in demonstrating syphilitic substances. Marie and Levaditi had positive results in 29 out of 39 patients examined. According to the stage of the disease the findings are once positive in ten cases of beginning paralysis, in 9 advanced cases, positive 7 times, and in 20 very advanced and grave cases, 19 times; so that it appears that the antibodies increase in quantity with the development of the paralytic phenomena; in a patient rapidly succumbing such an increase could be definitely determined. Of these 39 paralytics, 20 at least had previously acquired syphilis. In 4 tabetics and 5 tabo-paralytics the positive result was only 66 per cent., while for the total 39 cases studied a percentage of 73 per cent. was found; study of the cerebro-spinal fluid of other insane individuals was always negative, although two were among them that with certainty had previously gone through the course of acquired syphilis. The authors believe that it is not syphilis itself that produces the specific antibodies but the pathologic changes caused by the disease in the meninges and cortex; probably the antibodies arise in the cells of these tissues.

Morgenroth and Stertz, who likewise examined after the same method 8 cases of progressive paralysis, found antibodies in all of them, while all of the control cases proved negative. The investigations have, therefore, uniformly established the certainty that in finding antibodies the proof can be produced for a previous syphilitic infection. How important this is for the statistical consideration of paralysis is shown, in that only one of the 8 cases of Morgenroth the anemnesis revealed acquired syphilis. As to the frequency of coincidence of previous syphilis with paralysis, the statistics so far compiled are not reliable, as the authors' experience shows. For the present, however, the results of all these investigations cannot serve for theoretic considerations as to the genesis of paralysis and tabes; the results obtained merely demonstrate the remnants of a previous syphilitic infection. To connect them as causative factors with the genesis of those diseases is so far not justified. Much more extensive experimentation will be necessary. However, the work, as far as it has gone, is of great importance and will in the future influence clinical and mainly diagnostic questions to a high degree.

TO THE TWENTY-FIFTH BIRTHDAY OF THE DISCOVERY OF THE TUBERCLE BACILLUS.—Loeffler (*Deutsche Med. Woch.*, 1907, Nos. 12 and 13).

THE STUDY OF IMMUNITY AND ITS IMPORTANCE FOR THE PRACTICE.—A. Wassermann (*Deutsch Med. Wöch.*, 1907, No. 16).

THE SERUM-THERAPY OF ACUTE INFECTIOUS DISEASES.—Kolle (*Deutsche Med. Woch.*, 1907, Nos. 16 and 17).

These three papers are only mentioned here as instances of classic representations of problems of the highest importance generally, and especially to medicine. In view of the difficulty to obtain without specialistic knowledge an objective representation of the problems dealt with in them, they give a material that in its absolutely impartial representation and simple interpretation will even to the practicing physician be a source of great instruction. It will result in correct views about the practical application of the facts that investigation has brought out; it will do away with the many unclear conceptions, and especially show the limitation of this application. The language is absolutely lucid and free from many special terms and expressions that so many writers on the subjects seem to believe indispensable. Of great importance is Wassermann's paper is the valuation of the different forms of immunity bodies, the antitoxic and bacterial and bacteriotropic (with us called opsonins) substances. The one-sided enthusiasm for the latter lately finds its proper limitation in this paper. Kolle, too, demonstrates clearly and lucidly the range in which bactericidal sera promise to be utilizable. Many unclear conceptions about their possibilities are properly characterized. Our present status of knowledge of tuberculosis is masterfully presented by Koch's pupil, himself a master, and his paper, like the others, is so comprehensive that, if widely read and considered, they will be invaluable for the elevation of medical knowledge and for clearer ideas about medical problems of massive weight for practical purposes.

DIAGNOSIS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

THE GASTRIC SECRETION IN OLD PEOPLE.—Liefschuetz (*Arch. f. Verd.* 1907, No. 5).—As the result of a large number of tests, Liefschuetz finds that in persons over fifty years old there is usually a lessened degree of acidity of the gastric juice, and that in old people an entire absence of hydrochloric acid is not uncommon. This observation evidently has a direct bearing upon the diagnosis of gastric cancer in the aged. An aid in distinguishing between cancerous and benignant achylia in such patients is suggested by his observation that in cancerous achylia the digestive power of the gastric juice is not increased by the addition of hydrochloric acid. Mett's tubes are placed in two portions of the filtered gastric juice, one of which has been rendered normally acid. If cancer is present, there will be little or no difference in the digestive power of the two portions. He further calls attention to the fact that, as a result of reversed peristalsis, a mixture of bile, pancreatic juice and intestinal secretion may enter the stomach and may render the interpretation of the chemical findings very difficult.

DUODENAL ULCER. — Robson (*British Med. Jl.* 1907, Feb. 2.). Gastric and duodenal ulcer are frequently confused. The duodenal ulcer, however, usually gives a much more indefinite clinical history than gastric ulcer. It is much less amenable to medical treatment and its complications are as a rule more severe, hemorrhage being often rapidly fatal and perforation occurring more insidiously and being more apt to end in death. It occurs more frequently in men than in women and is commonest in middle age. Its most characteristic symptom is pain, usually beginning from three to four hours after eating, when the acid gastric contents are being poured into the duodenum. This pain is however again relieved by taking food, as the acid in the duodenum is then reabsorbed and the closed pylorus prevents the egress of fresh gastric contents. The pain is thus apt to be worst just before luncheon and dinner and at bed time or later. Antacids, lavage or vomiting always relieve the pain, since they neutralize or remove the irritating acid gastric contents. The site of the pain is usually to the right and a little above the umbilicus. It may be either paroxysmal in character or a steady dull ache and is less apt to radiate than in gastric ulcer or cholelithiasis. In duodenal ulcer there are usually periods of remission, when the patient is apparently in good health; these intervals may be weeks or months in duration. The tenderness, which can usually be elicited at the site of pain, is more diffuse than in gall-bladder disease and extends further downward. Spasm of the right rectus muscle is usually well marked during the attack and may simulate the presence of a tumor. As in pyloric ulcer, spasm of the pylorus is usually present and may lead to gastric dilation. Hyperacidity, too, is very constant and constipation is commonly present. Catarrhal jaundice, as might be expected, often occurs and interstitial or suppurative pancreatitis may arise from extension of the inflammatory process into the pancreas. While the diagnosis of a typical attack is usually not difficult, cases may occur, as in gastric ulcer, that produce practically no symptoms until perforation occurs.

A NOTE ON TEST FOR ACETONE IN THE URINE.—Jackson-taylor (*Lancet*, March 23, 1907).—In the sodium nitroprusside test for acetone in the urine, strong ammonia may advantageously be used in place of the potassium hydrate solution. The sodium nitroprusside solution is added to the urine and the ammonia carefully poured on top. If acetone be present, even in minute quantity, a well-marked and absolutely characteristic ring of magenta appears in from one to three minutes. If acetone be present in considerable amount, the magenta color gradually spreads upwards until it prevades the whole layer of ammonia. The addition of acetic acid, as in the usual acetone test, is unnecessary. The sodium nitroprusside solution must always be freshly prepared, though its strength is not important.

OBSERVATIONS ON THE DIAGNOSTIC AND PROGNOSTIC VALUE OF THE EOSINOPHILS IN THE CIRCULATING BLOOD, ETC.—Blumgart (*Med. Rec.* April 6, 1907).—The diagnostic value of the differential leucocyte count in infectious diseases is not generally appreciated. The entire disappear-

ance or very marked diminution of the eosinophiles, together with a distinct leucopenia, goes far to establish the diagnosis of typhoid fever in doubtful cases. A normal or increased percentage of eosinophiles, other things being equal, speaks against typhoid. This holds good, of course, only for the febrile stage of the disease. In cases of undoubted typhoid, the presence of eosinophiles, even in small numbers, during the first week is a favorable sign and speaks for a probable mild type. No typhoid fever patient should be considered cured or dismissed from observation before he has regained permanently a normal percentage of eosinophiles.

THE SOLUBILITY OF CUPRIC HYDRATE IN THE URINE.—Reale (*Wien. med. Wochens.*, 1907, No. 11).—In Trommer's test for sugar, as is well known, diabetic urine has the power of holding a considerable amount of the copper salt in solution before boiling and, on the whole, the greater the amount of sugar present, the greater the amount of cupric sulphat that must be added before a precipitate occurs. Too much importance, however, must not be attached to this observation, since normal urine may occasionally possess this property to a high degree, due chiefly to the presence of various nitrogenous bodies such as preformed ammonia, kreatinin, xanthin, etc. In chronic arthritis this phenomenon seems especially outspoken.

BLOOD CULTURES IN TYPHOID FEVER.—Roosen-Runge (*Zentralbl. f. Bakt.* XLIII, 1907, No. 5).—As a culture medium for the isolation of typhoid bacilli from the blood, the following is recommended: 1 litre of bouillon made of 0.5 kg. beef and containing 20 g. agar, 10 g. peptone, 5 g. salt and 10 g. sodium glycocholate.

THERAPEUTICS.

IN CHARGE OF

WILLIAM ENGELBACH, M. D.

DIET IN TYPHOID FEVER.—Burzagli (*Clinical Medicine*, No. 41, 42 and 43). — During the course of severe typhoid fever the loss of weight is marked. The one cause for this which cannot be modified is the toxic destruction of the albuminous substances. For this reason the author says that the decreased nourishment usually received by the patient which can be influenced should demand more consideration. He admits that this is no easy task, especially in this disease, on account of the lesions in the gastrointestinal tract, appetite and decreased secretions of digestion. The disadvantage of a pure milk diet is that not sufficient amount can be given daily to provide the proper caloric balance, the liability of its becoming repulsive and the fact that it is a good medium for the development of the bacilli. He recommends "Plasmon" as an additional article of diet especially of value in this disease. It is easily assimilated and well borne even in large doses. Besides this 70 per cent is absorbed from

the rectum when given as an enema. He gives enemas of 20 gm. in $\frac{1}{4}$ litre of warm water four times a day.

THE TREATMENT OF HYPERCHLORHYDRIA WITH CANE SUGAR.—Ribizzi (*Gazette de Degli Osped*, No. 19).—The author reports very favorably on the treatment of hypersecretion and hyperacidity by means of sugar solution. This solution consists of 200 to 250 c.c. of a 66 per cent. cane sugar in water. In addition to this the author gave atropine, stromonii, hyocyami, or belladonna. By this method the total acidity was reduced to normal and the symptoms entirely relieved.

CALCIUM SALTS AS CARDIAC TONICS IN PNEUMONIA AND HEART DISEASE.—Brunton (*British Medical Journal*, March 15).—The author writes very enthusiastically about favorable results produced by calcium salts in preventing cardiac failure in post influenzal pneumonia. He gives them in 5 to 10 grain doses dissolved in water, every four hours. As they are very deliquescent they can only be kept in solution. The disagreeable saline taste is overcome by one minim of elixir of saccharin to the dose. He also used these salts with very good results in cardiac disease exhibiting cardiac insufficiency. In cases of pneumonia where rapid action is desired, the chloride is the better. In cardiac disease other salts, such as lacto-phosphate, or the glycerino-phosphate, may be employed. He thought it possible that the great benefit frequently observed from a milk diet in heart diseases might be due in part to the calcium salts contained in the milk.

TREATMENT OF ECLAMPSIA. — Hirst (*Therapeutic Gazette*, April 15, 1907). — Basing his conclusions upon 86 cases of eclampsia and 278 cases of albuminuria in the maternity of the University of Pennsylvania, the author writes as follows concerning the active treatment of eclampsia: Chloroform is used to avert a convulsion when premonitory signs of the same appear. Blood pressure is reduced preferably by administering an initial dose of 15 minims of veratrum viride hypodermically repeated in 5 minim doses every hour for several doses. Venesection is useless for this purpose on account of the difficulty to withdraw sufficient blood in this condition. Morphine in large doses, $\frac{1}{2}$ to $\frac{3}{4}$ of a grain hypodermically, is indicated in parenchymatous types of nephritis. It is not tolerated in interstitial nephritis. Chloral 30 to 60 grains by enema, is given when the elimination is good. Pilocarpine is dangerous and should only be considered when sweating cannot be produced by other methods (hot packs, vapor baths, etc.). Thyroid extract is of value as a vaso-motor dilator but it has not been given a sufficient trial to warrant definite conclusions as to its active influence. It would seem to be of more value as a preventive than an active agent. Catharsis given in the form of olei tigli four minims in oil, concentrated solution of magnesium sulphate two dr. every fifteen minutes, per orum, or an ounce of castor oil containing four drops of croton oil, introduced through the stomach tube following stomach lavage, have been the methods employed. Diaphoresis is induced by a hot pack, or a hot alcohol vapor bath, the

latter carried out by pouring four ounces of alcohol on hot bricks wrapped in towels and then placing them beneath the covers in such a position that they will not burn the patient. Hypodermoclysis is given, a pint at a time, under the breast every eight hours. Forcible delivery is indicated unless labor is already begun, or the attack occurs early in pregnancy. Of the cases of albuminuria, 278 in number, the amount of albumin varied from a trace to 9-10 of bulk on boiling. In 11 cases labor was induced to avert an attack of eclampsia, all successfully. In 11 others convulsions suddenly appeared, 2 of which ended fatally. So that in 278 patients whose filtered urine showed albumin, eclampsia developed in 3.9 per cent in spite of treatment. Of the 278 patients 40 had had eclampsia in previous pregnancies, but escaped in the present one, under treatment.

TULASE, BEHRING'S NEW REMEDY FOR TUBERCULOSIS. — (*The Dietetic and Hygienic Gazette*, May 1907.) — Tulase, the new remedy for tuberculosis devised and advocated by Prof. Behring is, we learn, when in the pure state, a clear liquid with an amber tint containing all the constituents of the bacillus tuberculosis (Koch). Prof. Behring groups the constituents into three principal divisions: (1) Lipoid substances soluble in alcohol, ether, acetone and chloroform. These lipoid substances are neutral fats and waxes. (2) Protein compounds extracted from the tubercle bacilli from which fat has been removed by distilled water, and 10 per cent sodium chlorid solution. These substances consist partly of nuclealbumins and of globulins. (3) Proteids which make up the principal constituents of the tubercle bacilli freed from fats and protein.

Tulase is prepared by a very complicated process, which embraces treatment of the bacilli with chloral, by which an active constituent of the bacilli, designated by Behring T. C., is changed so that when tulase is administered either internally or by subcutaneous or intravenous injection, the cells of the T. C. are decomposed and converted into a hypothetical substance designated by Prof. Behring T. X. The administration of tulase, according to Prof. Behring, confers immunity against tuberculosis and hypersensitiveness to Koch's tuberculin.

In the treatment of animals infected with tuberculosis it is recommended that the remedy be administered either by intravenous or subcutaneous injections. The dose recommended by Prof. Behring is 0.01 c. cm., which dose may be doubled at the second application only after a lapse of four days. In two to four weeks the dose is repeated, the same quantities being given as before, with an interval of four days between.

Tulase is put up in glass tubes of 5 c. cm., each, in both 1 and 10 per cent solutions.

The claim is made that tulase is a substitute for tuberculin in the diagnosis of suspected cases of tuberculosis. Caution is given by Prof. Behring against too great expectations in results following the administration of tulase, as the most that should be hoped for the product as a remedy is that its early use in the young may protect against tuberculosis. Curative results are not to be expected when the lung tissue has been destroyed by disease.

THE TREATMENT OF TYPHOID WITH PYRAMIDON. — Leick (*Munch. Med. Wochenschr.*, March 19, 1907).—From his four years' experience the author claims that pyramidon should be ranked high as a therapeutic agent in typhoid. He gives 10 c.c. of a 2 per cent solution for adults, and the same amount of a 1 per cent for children every two hours day and night, unless the temperature falls below 36 degrees C. This treatment is used with exclusion of balneo-therapy. The most prominent features in pyramidon treatment are the absence of apathy, delirium and stupor. The patients complain only of hunger. Temperature is quickly reduced from 40 to 36 degrees C. and even to 35 in some cases and is easily kept below 37. The pulse is decreased but not so easily controlled as the temperature. Delirium of the most severe type is relieved in two days. Appetite soon becomes good so that it is a difficult matter to keep patients on a liquid diet. The author has never observed any dilatory effects on the circulatory system, which have been reported by other authors. These unfavorable results he thinks are due to too large intervals between doses. Vomiting sometimes occurs. The urine turns a high red color, especially in the beginning of the treatment, due to antipyrin component of pyramidon (Dimethylanedianitipyrin). He reports 113 cases treated. The diagnosis being confirmed by Widal reaction. Of these 5 cases died between the first and fifth day after entering the hospital. Of the remaining 108 cases he had a mortality of only 6, less than 1 per cent.

STRUMA TREATED BY IODIPIN.—Mollo (*Allg. Wiener Med. Zeitung*, No. 47). — The author contributes to the subject of the treatment of struma by iodipin injections, following the suggestions laid down by Meyer in 1901. The patient, a young woman, married two years, had noticed that for about eight months she had had a slight pain in the right side of the neck. The neck began to swell, and she called in medical aid. After two months' observation, thyroid tablets were prescribed, but they proved of no service. Iodipin, 2 c.c. (30 min.) of the 25 per cent preparation, was then injected every other day. Under this treatment the goiterous swelling disappeared; after the twentieth injection it had totally disappeared. In all, 50 c.c. (1 2-3 oz.) of the preparation were employed.

PRESCRIPTIONS.

ERYSIPELAS (*Jour. A. M. A.*)—The following combinations have also been suggested to be applied locally in the treatment of erysipelas:

Guaiacolis	3 ss
Mentholis	gr. xv
Linimenti Camphorae	3 ij

Apply over the affected areas every two hours.

In strong robust individuals pilocarpine is an old-time remedy, its value lying in its ability to promote elimination by the skin. It may be given as follows:

Pilocarpine Hydrochlor	gr. j
Sacchari Lactis	gr. xij
M. ft. cap. No. viii.	

One capsule every six hours.

Or:

Pilocarpine Hydrochlorgr. j
 Aquae5 jss
 Ten drops hypodermically every hour until free diaphoresis occurs.

Or:

Liquoris Plumbi Subacetatisf. ʒiii

Add the entire amount to two quarts of warm sterile water, and apply constantly on a soft cloth.

Radcliffe at one time stated that the following combination applied locally had almost specific properties:

Ichthyolif. ʒij
 Spts. Etherisf. ʒij
 Collodiif. ʒi. jss
 To be applied locally.

SURGERY.

IN CHARGE OF

MALVERN B. CLOPTON, M. D.

OPERATION FOR PERFORATION OF ULCER OF THE STOMACH.—Korte (*Arch. r. Klin. Chir.*, Bd. 81, Th. 1).—In this article the author gives a second series of perforating ulcer cases numbering 19, with 13 recoveries. (In the first series published in 1900, of the 10 operated cases only one recovered, but all the cases came to operation with at least a 24-hour interval after the perforation). In this series of the 6 cases operated upon before 10 hours after perforation all recovered; of those operated between 10 and 19 hours, 5 of the 7 recovered, and of those operated after the 20th hour only one of the 6 recovered. The chief factor is the time after perforation that the operation is done. In the literature since 1902 there are 95 cases of perforation of gastric ulcers reported with 51 recoveries. Of Korte's 19 cases, 12 gave a history of previous pain from the ulcer, but 4 had been entirely free from stomach symptoms. Four of the cases had been previously gastroenterostomised, one 5 years previous, another 3 years before had an anterior gastroenterostomy, a third had a similar operation only 9 months before, a fourth had a posterior gastroenterostomy which contracted after 3 years, and a second fistula was made in the anterior wall, and 9 months later the stomach perforated. Two of these perforations were at the junction of the stomach and gut; one was a new ulcer. The fact that in six years with 19 cases, four perforations occurred after operations which are thought to be curative, shows that we cannot hope that gastroenterostomy will cure all. The cause for perforation was hard to determine except in 2 instances, when the pain followed immediately after lifting heavy loads. Pain is the first symptom, and is constant. (Morphine should never be given as it masks the picture). The most valuable objective sign is tension of the abdominal wall. Tenderness is usually most marked in the

epigastrium. The pulse in the first hour is not a good index; not, in fact, until peritonitis is developed. Liver dullness and free gas in the belly only come later in the disease, and should not be waited for, as the only hope of recovery lies in the earliest operation. Leucocytosis is not regarded as determining, as the observation can in these cases only be made once. The differential diagnosis between perforated appendix, gall bladder or pancreas can often only be determined by operation. Operation in all the cases was under general anesthesia, a long incision through the right rectus exposing the field. The ulcer was either excised or closed without excision. In one instance where the ulcer was so close to the pylorus that stenosis seemed likely after closure, an immediate gastroenterostomy was made. The perforating ulcer was in half the cases at the pylorus or close by; in 5 cases in the middle of the lesser curvature; the others were near the cardia, two at the point of the earlier gastroenterostomies, one in the jejunum below the gastroenterostomy and one in the duodenum.

SILVERIZED CATGUT.—Blake (*Annals of Surgery*, January, 1907).—To take advantage of the antiseptic influence of colloidal silver experiments were carried out to determine the efficacy of impregnating catgut after the manner of Crede. Collargolum was used in a two per cent. watery solution, which does not need to be boiled, as it is sterile. Four coils of catgut, each containing ten strands, are wound on four glass slabs and placed in a jar containing the two per cent. collargolum solution, where they remain a week, the jars being shaken once or twice in the interval. The slabs are then removed, washed in sterile water until the excess of the collargolum is removed, and placed in 95 per cent. alcohol for fifteen to thirty minutes. After this the separate strands are wound on spools under aseptic precaution and are preserved in 95 per cent. alcohol. The tensile strength is greater than catgut prepared by boiling in alcohol, but not quite so strong as chromic gut. The culture experiments showed that the silver not only killed organisms present in the gut, but inhibited the growth of such contamination as followed handling with unsterile hands. Pilcher has used gut so prepared in over 500 operations; during this time there has been a notable absence of infective accidents, and he continues its use.

ARTHROPLASTY UPON THE ELBOW JOINT.—Scudder (*Annals of Surgery*, Feb., 1907).—Three months after a fracture of the olecranon, which had been immediately wired in place, the elbow was found ankylosed at an obtuse angle. Through a long posterior incision the olecranon was divided, all the synovial membrane removed from the joint, and a large fascial flap with some fat attached, was taken from the upper arm, and leaving a pedicle below, it was swung into the old joint. The olecranon was wired in place, the wound closed and the elbow immobilized at a right angle. Motion was begun on the tenth day. The joint continued to improve. Sixteen months after operation there was complete extension, and flexion to less than a right angle. The man who is 48 years old, is able to do all the work about his farm and suffers no inconvenience.

ACUTE DILATATION OF THE STOMACH.—Conner (*Am. Jour. of Med. Sc.*, March, 1907).—This study is based on 102 cases (2 of them observed by the author) and covers the subject most thoroughly. Nearly half of the cases followed operations under general anesthesia, most frequently when the biliary tract was attached, or for other abdominal conditions, but in no instance was there acute dilatation after operation upon the stomach. In ten cases the trouble followed after operating upon other parts of the body. In about half of the cases the vomiting from dilatation merged into the post narcotic vomiting and the dilatation was developed within 24 hours, while in some cases it was delayed from three to seven days. Another group of cases occurred in the course of, or during the convalescence from severe and wasting diseases, such as lobar pneumonia, typhoid, tuberculosis, in which emaciation and prostration were associated with long continued decubitus. Another class of cases developed after injuries, either to the abdomen or to the nerve centers, or some cases developed after indiscretions in diet, such as a single large meal taken by people in good health. Another group of cases is that associated with disease and deformity of the spine, 3 cases having occurred while wearing plaster jackets. Vomiting, persistent, profuse, uncontrollable, was the most prominent symptom and present in 90 per cent. It is usually of a thin watery fluid, slightly stained with bile. There was pain of greater or less severity in many of the cases, and occasionally tenderness. Distension of the upper abdomen was present in most cases. Thirst was intense in many cases, with a complete suppression or great diminution in the amount of urine. Splashing sounds and fluctuation waves aided frequently in the diagnosis, but visible peristaltic waves were usually absent. Next to vomiting the rapid development of collapse is the most striking feature. Three-fourths of the cases died, but this is hardly a correct ratio for all affections with acute dilatation. The morbid anatomy was studied in 69 autopsies and only three times was there obstruction at the pylorus. The mechanism is not well understood but at least half of the cases showed some form of obstruction to the duodenum, and quite frequently it was noted that this was due to pressure of the root of the mesentery containing the superior mesenteric artery pressing the duodenum against the vertebral column behind. Such constriction can occur only when the mesentery is stretched by the weight of the small intestine hanging over the brim of the pelvis, the patient being on the back and the small gut collapsed. Great dilatation of the stomach would increase the liability to mesenteric obstruction by crowding the intestines into the pelvis and by preventing their escape from the pelvis, rendering such obstruction, when once formed, more complete and permanent. If treatment is instituted before collapse and extreme prostration it has been in most cases most gratifying. First empty the stomach with a tube, and repeat the emptying several times in the 24 hours. To relax the tension on the mesentery, and thus to relieve the mesenteric constriction to the duodenum, the patient should be turned from the back to lie on the belly, and if they are again put in dorsal decubitus the position must be reversed from time to time until the stomach tone is regained. The lack of fluid must be replaced by salt solution, as by enemas or by hypodermo-

clysis. Operative interference has not been very successful except in those cases where there was found a kink in the duodenum which could be relieved. Opening the stomach to drain, or gastroenterostomy has been very unsuccessful. Conner reviews Kelling's experimental work and also his own.

THE TREATMENT OF FISTULA OF THE PANCREAS.—Heineke (*Zentr. f. Chir.*, 1907, No. 10).—The duration of fistulæ after opening a pancreatic cyst or draining a ruptured pancreas and the excoriation accompanying, make very trying conditions to deal with. To avoid the maseration of the skin and also to shorten the time of healing, the hydraulic empyema apparatus of Perthes is used. The eventual closure of the fistula is brought about by using the suggestion of Wohlgemuth, who found that with a fat diet the secretion was lessened, with a proteid diet the secretion was increased while with a carbohydrate free diet the secretion was practically stopped. Further he noted that with an acid the secretion was increased while alkalies decreased the flow. A combination of a diabetic diet with small doses of sodium bicarbonate decreased the flow and allowed a fistula to close in a very short time. A case is reported of a traumatic rupture of the pancreas drained through the gastro-colic omentum that secreted 500 c.c. a day for a time, then closed spontaneously for a day, to again break open and discharge from 50 to 100 c.c. a day. Three days after beginning a carbohydrate free diet the fistula closed.

ORTHOPEDIC SURGERY.

IN CHARGE OF

NATHANIEL ALLISON, M. D.

THE OPERATIVE TREATMENT OF WRY-NECK.—Gerdes (*Zentralbl. f. Chir.*, 1907, XXXIV, 145). The author calls attention to the fact that the total, or partial, extirpation of the contracted sterno-mastoid muscle, as advised by Mikulicz, has resulted favorably in most instances, but recurrences have taken place. Trendelenburg has advised in addition a thorough division of the cervical fascia, and Wullstein has supplemented this by recommending a shortening of the stretched muscle on the opposite side. Other muscles than the sterno-mastoid are involved, as the scaleni, levator anguli scapuli, and the acromial portion of the trapezius. The anterior scalene is the most frequently involved. Gerdes gives this method of dividing the sterno-mastoid as well as this anterior scalene muscle. He makes an incision transversely, 5 to 6 cm. long, a finger's breadth above the clavicle, beginning over the sternal portion of the sterno-mastoid. After dividing both origins of this muscle, the cervical fascia posterior to it is opened freely, and the external jugular vein exposed. The omohyoid muscle is retracted upward and outward, and the external jugular vein inward. The anterior scalene muscle is thus exposed, with the phrenic nerve lying on it and the brachial plexus ex-

ternal to it. These structures are carefully isolated from the muscle, and it is carefully divided just above the subclavian artery. By enlarging this wound, the scalenus medius may also be divided. The wound is then packed with gauze for forty-eight hours, and is permitted to heal by granulation. After four days, active and passive movements are begun, and continued for six weeks. This operation, the author states, gives satisfactory results, even in old cases.

A NEW METHOD OF DRESSING OBLIQUE FRACTURES OF THE LEG.—Desguin (*Jour. de Chir. et annal. de la Soc. Belge de Chir.*, 1907, VII. 78).—The author states that he is in favor of an open operation for these cases, and believes that only by such an operation can a complete anatomical cure be effected. In many cases conditions are encountered which render operation out of the question, and one encounters here great difficulty in securing a suitable reduction of fragments. He offers an apparatus which consists of two inferior plates, which are fixed to the limb below the fracture by a cuff of plaster of paris. Two superior plates are fixed to the limb above the fracture. Each inferior plate is furnished with a kind of rack fixed transversely and containing several deep notches. Each superior plate carries also a transverse plate, which is perforated with four or five rectangular openings. These transverse plates, the upper and lower, are held together by two long bolts, with nuts on each side of the leg, fitted into the rectangular openings of the upper plates, and the corresponding notches of the lower. This apparatus allows motion at the knee and ankle, and does not produce atrophy and disturbance of circulation, as do appliances covering the entire lower extremities.

GONORRHEAL JOINT DISEASE.—Nathan (*N. Y. Med. Jour.*, March 16, 1907).—Gonorrhoeal joint disease, with the exception of the mild evanescent cases, which are due to toxemia, is really a pyemic condition. The gonococcus directly invades the affected tissue, and the foci are located either in the synovial membranes, constituting an arthritis, or they are in the articular ends of the bones, constituting an osteoarthritis. In osteoarthritis, the bone focus is always primary, and is never caused by extension of the inflammation from the interior of the joint. Hence, a gonorrhoeal arthritis remains an arthritis and never involves the bones, no matter how long it exists or what its intensity. Gonorrhoeal joint disease may be recurrent, but never chronic. The cases which have been called chronic are those in which the initial acute inflammation has left behind bands of adhesion or other structural change in the synovial membrane in arthritis, and bone outgrowths, or ankylosis, in osteoarthritis. These changes, unless treated mechanically, or by operation, are permanent. The treatment during the acute stage must be on general lines, and must depend upon existing conditions. The treatment of deformity must be based upon the same principles which govern the treatment of all deformities. Cases that are treated properly during the acute stage will usually get well without disability. It lies with the general practitioner and the genito-urinary surgeon to prevent the serious, often life-long disability, which sometimes follows in the train of a gonorrhoeal joint infection.

A CASE OF CONGENITAL ANTERIOR DISLOCATION OF THE HIP.—Ryerson (*Amer. Jour. of Orth. Sur.*, April, 1907).—Only seven or eight cases of this form of dislocation are reported in the literature. The author adds his case merely for record. Child two years and seven months old. Began to walk at fourteen months and an inequality in gait was noticed almost immediately. Never complained of pain or discomfort in hip. Examination showed slight limp on left side, three-fourths atrophy of thigh, five-eighths-inch shortening. No lordosis. Trochanter about five-eighths-inch above Nelaton's line. All motions of joints free except abduction, which is only two-thirds of normal. Head of femur plainly felt below anterior superior spine of ilium, and great trochanter felt almost directly behind the head when foot is pointed straight forward. The x-ray shows head above the acetabulum, and resembled the picture of ordinary backward dislocation. Case was not operated upon.

EXOSTOSIS IN THE PLANTAR PORTION OF THE OS CALCIS.—Bradford (*Amer. Jour. of Orth. Surg.*, April 1907).—Under certain conditions, not as yet thoroughly understood, abnormal bone growths are developed at the insertion of important muscles which are subject to strain. The os calcis, subjected as it is to injuries and strains, affords abundant opportunity for these conditions, inasmuch as the tendo achilles arises from its upper and posterior portion, and the plantar fascia from its lower portions. Baer has reported several cases of blenorrhagic exostoses, but the author reports several cases where no blenorrhagic conditions ever existed. Examination of ninety specimens of health normal os calcis showed that the condition is not one of great rarity. It does not present much occasion for alarm, beyond a certain amount of fatigue after the patients are obliged to stand continually on their heels. Where the exostosis becomes unusually large, operation is necessary. Non-operative methods afford relief. These are the application of a cork-sole, or the wearing of a cushioned heel for several months, and the avoidance of long standing.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON.

PERITONEAL PROSTATECTOMY AND TRANSVESICAL PROSTATECTOMY, METHOD OF FREYER: A COMPARATIVE STUDY OF THE TWO METHODS.—Castano (*Ann. des Mal. des Org. Urin.*, March 15, 1907).—Transvesical prostatectomy is a simple operation, and one more easily performed than perineal prostatectomy. The opening in the bladder gives the great advantage not only of ascertaining its condition, but also of facilitating the extraction of the vesical lobes and calculi, so common in these cases, a thing which is almost impossible to be done by the perineal route, especially in the obese. In total prostatectomy, which ought always to be done, the posterior urethra is sacrificed in the perineal method, while

it is left intact in the transvesical. In the latter the duration of the operation is much shorter. Then, too, wound of the rectum, which is quite usual in the perineal, is impossible in the transvesical. Impotence is a natural consequence in the perineal route; in the method of Freyer it is a rarity, since, as a rule, the seminal vesicles are respected. As drainage is much better by the perineal route, in the urgent cases, in those where it is impossible to disinfect the bladder the perineal is the route of choice. The results obtained by the method of Freyer are quicker, better and more complete. As the surgeon improves his operative ability his mortality becomes less, so that it compares favorably with those done by the perineal route.

GONORRHEAL PERITONITIS IN THE MALE.—Thomas (*Northwestern Medicine*, April, 1907).—A peritonitis may be developed from an acute seminal vesiculitis, the infectious process then beginning in the rectovesical pouch where it may localize itself, or may spread indefinitely from that morbid centre. Two cases are reported, one occurring during an acute attack of gonorrhea, complicated with epididymitis and seminal vesiculitis; the other case gave no history of gonorrhea. At the operation the intestines and peritoneal surfaces lay down in the right iliac fossa were covered with a flocculent lymph. There was no pus. The appendix, which was red and swollen, was removed. It was apparent that the condition of the appendix was secondary to the localized peritonitis. There were no ulcers in the mucosa and no evidence of perforation. Diplococci, which were decolorized by the Gram stain, were discovered in the pus which later discharged from the wound.

TREATMENT OF PROSTATIC CONGESTION BY ELECTRICAL METHODS.—Bolton (*The Lancet*, April 13, 1907).—In congestion of the enlarged prostate, electrical applications meet the indications of relieving local stasis, of restoring the circulation and improving the tone of the muscle fibres of the bladder. In electricity we have a certain relief for all cases except those in which a malignant or tuberculous process is present, or in cases in which there is fluctuation from the presence of pus. The degree of success in the treatment depends upon the amount of hyperplasia or degeneration that has taken place in the structure of the gland. In the early stages of the affection a complete cure is uniform. Two cases are reported which tend to confirm the above conclusions.

THE HEMATURIA OF CHRONIC NEPHRITIS.—Chute (*Amer. Jour. Urol.*, March, 1907).—After a thorough consideration of the subject the author gives the following conclusions: One may see in cases of chronic nephritis renal hematurias. Some are slight, others produce great debility by their long duration, or even threaten life by their profuseness. To this class, probably belong many of the so-called "essential renal hematurias." These hematurias may have as their underlying cause a nephritis of either toxic or infectious origin. A nephritis of infectious origin is unlike a toxic nephritis, in that it may be limited to one kidney or part of it. Though many cases do not give a distinctive

clinical picture, a diagnosis can probably be made in a considerable proportion of them. A recognition of the hematuria of chronic nephritis is important that the condition may not be confused with a more serious renal lesion, and a kidney be unnecessarily sacrificed.

Under operative treatment, a considerable proportion of these cases have recovered. Our knowledge of the condition is not sufficient to allow one to formulate definite rules as to the best operative procedure in each instance. There are not at present a sufficient number of carefully reported cases to allow one to compile useful statistics. Careful observation of similar cases as they arise, combined with a thorough bacteriological study of the urine, as well as of the microscopic pathology of the kidney, will doubtless do much to clear up many points that are at present in doubt.

OBSTETRICS AND GYNÉCOLOGY.

IN CHARGE OF

HUGO EHRENFEST, M. D.

CHOREA DURING PREGNANCY.—Wm. Fletcher Shaw (*Jl. of Obstet. and Gynecol. of British Empire*, April, 1907).—In this paper 11 cases of chorea of pregnancy are recorded, which occurred in the practice of St. Mary's Hospital in Manchester, within 15 months. The first two cases were treated on traditional lines; the results were bad. Both patients died. The treatment resorted to was: Nourishing diet, arsenic, aspirin, and strychnine, and finally artificial induction of labor. In view of these results it was decided to try a totally different antitoxemic treatment, as first suggested by Fothergill. Nine patients were treated in this manner with the best results. The idea underlying the experiment was, that the toxemia of pregnancy lowers the resistency of the nervous system and puts it in a state of heightened irritability. It thus responds to stimuli, chemical, emotional, etc., which would not otherwise produce any effect perceptible by ordinary clinical methods of observation. If this supposition is correct, this class of cases comes within the same category as hyperemesis, eclampsia, and the other toxemias of pregnancy, and should be treated as such. On this assumption the subsequent nine cases were treated with the view of eliminating any toxins which might be present. The patients were kept quiet in bed on a strict milk diet, bowels freely opened with pulv. jalap. comp., the action of the skin and kidneys being stimulated by means of diaphoretics and diuretics. Thyroid extract was also given to five of the patients, commencing with 15 grains, and in a day or two being increased to 30 grains daily, one patient even having received 40 grains per diem for three days. Every patient under this treatment showed signs of improvement in the course of a few days; improvement progressing slowly until finally each was discharged from the hospital cured. Induction of labor seems strongly contraindicated by the results of these cases. From exact observations it would seem that the thyroid extract does not play a very important role in this treatment.

BACKACHE AND GYNECOLOGIC TROUBLES.—Lomer (*Zentralbl. f. Gyn.*, No. 13, 1907, p. 366).—About every third or fourth patient consulting a gynecologist complains of backache. Often the presence of a retroflected uterus may be ascertained. But even a restoration of the malposition to normal may not relieve the pain. Lomer first of all asks the patient to point out exactly the location of the pain. A backache above the level of the umbilicus, in his belief, is not caused by any gynecologic anomaly. If located below the umbilicus, the writer carefully questions the patient whether this pain is relieved by bedrest. If this is the case the possibility of an inflammatory process as its cause must be considered first of all. If not improved by rest, if it is worse in the morning, then it is due usually to muscular weakness produced by a uric acid diathesis, which can be satisfactorily treated with aspirin. If the patient is unable to give precise answers, if she complains that the pain comes very irregularly, but especially after psychic emotions, a suspicion of hysteria is justified and careful search for positive symptoms of this disease necessary. Backache accompanied by profuse purulent or especially hemorrhagic discharges (menorrhagia and metrorrhagia), as a rule is the result of a general debility and can be relieved by means of iron preparations after the uterine discharge has been stopped.

STATISTICS CONCERNING PLACENTA PREVIA.—Buerger and Graf (*Monatschr. f. Geb. u. Gyn.*, vol. 25, H.1).—Among 44,676 labor cases, attended in Schauta's clinic in Vienna within the last 13 years, 342 cases of placenta previa were encountered. Of these number 63 were of the central type, 123 of the partial and 156 of the lateral. The method of choice in the treatment of this complication of labor is bimanual version, without extraction, after Braxton-Hicks. Other methods are applied only if demanded by certain conditions. The results are decidedly satisfactory as far as the maternal mortality is concerned, the average maternal mortality for all three types of placenta previa being 5.85 per cent. Less satisfactory is the accompanying fetal mortality of 45 per cent. Improvement in this respect seems highly desirable, but certainly not by the use of methods which would tend to increase the danger to the mother as is the case with Cæsarian section.

HYPEREMESIS GRAVIDARUM.—K. Baisch (*Berlin. klin. Woch.*, No. 11, 1907).—From the standpoint of etiology chiefly, three forms of hyperemesis are to be differentiated: First, those cases in which the exaggerated vomiting is brought about by anomalies of the central nervous system, hysteria being the most important. Secondly, cases in which the emesis is due to a gastric disease. In the last group the hyperemesis is the result of an overproduction of certain substances within the uterus, which cause vomiting. Proper therapy must take into consideration these three etiologic factors. In cases of the first group the best results are obtained by bedrest, especially if the patient is placed in a hospital. The cases of the second group readily improve under proper dietetic treatment. In the third group the medicinal therapeutics is of importance. Good results are obtained with the administration (hypodermic) of scopolamine in doses of three to five-tenths of a milligram, about twice

a day. Diuresis and intestinal peristalsis are to be encouraged. If such a patient, in spite of energetic dietetic and medicinal treatment, is losing in weight, the pregnancy must be interrupted quickly.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M.^cD.

SPLENIC ANAEMIA IN CHILDHOOD.—Labbe and Aubertin (*Rev. Mens. des Mal. de L'Enf*, February, 1907) find that the essential characteristics of all splenic anaemias of childhood are: (1) Splenomegaly. (2) Anaemia sometimes evidenced by lowering of the hemoglobin percentage, sometimes by diminution in the number of reds, most often mixed forms. (3) By the presence of a large number of nucleated reds. The secondary and variable characteristics of the different forms are as follows:

(a) Reaction with a predominance of myelocytes (myeloid splenic anaemia).

(b) Reaction with a predominance of lymphocytes (lymphatic splenic anaemia).

(c) Reaction with excess of eosinophiles.

(d) Mixed reactions.

Though it is true that the characteristics in the first category are the only ones necessary for the diagnosis of splenic anaemia, and though the variations of the second group are almost infinite, it is nevertheless true that these variations are of great importance. Their hematologic diversity is more apparent than real. All splenic anaemias are accompanied by a greater or less degree of myeloid reaction, and though in certain cases it would appear that non-granular mononuclears predominate, it is not to be considered that this would speak for a special form; since we know that myeloid tissues can also produce these mononuclears. The clear-cut division between myeloid tissues and lymphoid tissues with resulting reaction on stimulation which obtains in the adult does not obtain to nearly the same degree in the infant, who reacts with the simultaneous production of both myeloid and lymphoid cell forms, in many cases. Indeed, in all autopsies in cases of infantile splenic anaemia, there is found as a substratum a myeloid proliferation of a type, more or less advanced, located not only in the spleen and bone-marrow, but also in the lymph-glands and the thymus.

DIAGNOSIS OF TUBERCULAR BRONCHO-PNEUMONIA IN INFANCY. — Mouriquand (*These de Lyon*, 1906, *Arch. de Med. des Enf.*), as a result of the study of 190 cases, finds that tubercular broncho-pneumonia is the most frequent form of tuberculosis in early and late infancy. It is difficult to distinguish this form from simple broncho-pneumonia. According to the author much importance is to be attached to the presence of very fine rales, and the absence of larger rales in the larger bronchi. The

lesion is more frequently located at the base than at the apex; indeed, the apical lesion is not characteristic of the tubercular form. The onset is very often that of an ordinary broncho-pneumonia, the more typical signs not showing themselves until the twelfth or fifteenth day. There is marked dissociation between the auscultatory findings and the general symptoms. In early infancy the cases are apt to run an apyretic course while in later infancy there is more apt to be a tubercular fever curve. Enlargement of the peripheral glands is *not* a sign of diagnostic value unless the glands are of considerable size, with tendency to softening. Albuminuria is rare. In many cases there is enlargement of the liver and of the spleen. The autopsy in these cases practically always shows tubercular disease of the bronchial glands. The diagnosis of this condition must necessarily rest more on the physical findings and general symptoms than on the results of laboratory tests, inasmuch as the latter afford no definite means of localization of the lesion.

IMPAIRED REASONANCE BEHIND AND BENEATH THE INNER THIRD OF THE LEFT CLAVICLE IN NORMAL CHILDREN.—Hamill (*Arch. of Ped.* February 1907), says that this dulness exists in the chest of the majority of infants and children in perfect health. It is more difficult to elicit in infants than in older children and it persists throughout childhood. This dulness can be elicited by percussion of the clavicle and by percussion in the first interspace just beneath the clavicle, and can be heard best with the child in a recumbent position. Its probable explanation is the fact that the posterior position of the lung in early life brings the great vessels into more intimate contact with the anterior chest wall. The importance of the sign lies in the fact that this area of dulness may be misinterpreted as indicative of a pathological lesion.

IMPRESSIONABILITY OF CHILDREN UNDER THE INFLUENCE OF SURROUNDINGS. — At a recent Congress of Hygiene of Children in Berlin, Baginsky read a paper with this title.—(*Der Kinderarzt*, February, 1907).—Baginsky finds that children possess in marked degree adaptability to their surroundings. This is noted in healthy as well as in sick children. Even very small children, for instance, who have been restless and much disturbed for several days, become quiet on admission to hospital. Thus, Baginsky has seen torticollis and enuresis cured by sending the children to a hospital. This tendency of adaptation to surroundings is particularly well illustrated in the case of nervous children in whom the psychic influences are apt to be very marked. The force of imitation and association is a very powerful one in childhood. The imagination of the child is very active, and in this fact is to be found the origin of the phantasy, the fear and also the deceit of childhood. The practical importance of these facts so far as the care of children is concerned lies in the necessity of putting children into the most favorable surroundings. This may frequently be utilized in the therapy of many of the illnesses of childhood.

TUBERCULAR LYMPHADENOMA IN CHILDHOOD. — Weill and Lesieur (*Arch. de Med. des Enf.*, March, 1907), as the result of their studies of this subject reached the following conclusions:

(1) Tuberculosis may cause in the child a chronic generalized adenopathy with the appearance of typical lymphadenitic tumors (tubercular lymphoma).

(2) This tubercular pseudo-lymphæmia may be accompanied by enlargement of the spleen, of the liver, and by anaemia (aleukaemic pseudo-lymphæmia).

(3) The clinical evolution may be febrile, the fever being of continuous, intermittent, or inverse type.

(4) Histologically, this tubercular adenopathy differs from an acute tubercular adenitis by the predominance of sclerotic lesions and by the absence, or very slight degree of caseation.

(5) Tuberculæ bacilli isolated from these tubercular lymphomata can adapt themselves to lymphoid tissues as shown by the production in the guinea pig of a tuberculosis of slow evolution affecting the glands almost exclusively, a true experimental tubercular adenopathy.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

A CASE OF SUCCESSFULLY OPERATED SPINAL CORD TUMOR WHICH RAN A COURSE WITHOUT PAIN.—Sturnsburg (*Deutsch Zeit f. Nervenhekd.*, Bd. 32, heft 2-3).—This is an account of an interesting case of spinal cord tumor in a man 48 years old which was operated upon successfully. During the whole course of the disease there was never any pain or any suggestion of an irritative lesion. The legs showed a spastic paresis with all the signs that usually accompany such a condition, Babinski klonus, etc. The sensation was from the beginning much involved so that the localization of the tumor was made possible by this alone. The tumor was localized at the tenth dorsal segment. The tumor was found in that place and was removed without any difficulty. The author concludes as follows from this experience: In the presence of symptoms which point to a progressive process in the spinal cord which seem to indicate that the original location of the lesion does not alter but remains more and more expressive of the growing symptoms, we are justified in suspecting an extramedullary growth. Furthermore we are justified in advocating its surgical removal even if during the whole course of the disease there is no pain or irritative symptoms.

ANOTHER CASE OF TEMPORARY FAILURE OF THE KNEE JERK IN HYSTERIA.—Wygand (*Neurologisches Centralb.*, No. 7, 1907).—Binswanger, in his well known monograph on hysteria, has made the statement that an absence of the knee jerk does not occur in hysteria. Two cases of such a disappearance have been published by Nonne and has thus far

escaped the criticisms that have been directed against them. The author gives an account of a case of severe hysteria in which the knee jerk disappeared and where it could not be obtained even with the greatest care and in all sorts of positions and with the re-enforcement procedure. It was a case of hysterical paralysis and the knee jerk was absent during the most pronounced period of the paralysis. It is probable according to the writer of this paper that more cases can be found, if they are carefully searched for. He therefore stands opposed to the dictum quoted in the beginning of this abstract and as far as can be seen from his clinical report the case seems to prove his contention that in certain circumstances in hysteria there can be a temporary absence of the knee jerk.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.—Fowler (*Rev. Neurology and Psychiatry*, April, 1907).—This is an interesting paper on a subject that is of much importance at the present time. The material is sufficiently large to warrant some general conclusions and the post mortem examinations were made with great care. The material embraces twenty-three cases with fourteen post mortems. These are some of the conclusions: The commonly accepted etiology is that the micro-organisms gain access to the brain from the nasal cavity. There is no clinical or pathological evidence in this series of cases to support this view. There seems to be certain facts tending to support the view that in cerebro-spinal meningitis the cord lesion is primary and that the diplococcus invades the nervous system through the spinal meninges. In most cases the post mortem appearances show that the cord lesion is of older standing than that of the brain. The constant early and complete abolition of the abdominal reflex seems to point to the early implication of the lower dorsal cord. The therapeutic effect of lumbar puncture was found to be minimal, but from the point of view of diagnosis this procedure was found to be of the greatest importance. The characteristic symptoms of the disease in the beginning are often of so slight a nature that a diagnosis is impossible without the result of the examination of a specimen of cerebro-spinal fluid.

THE DIAGNOSTIC VALUE OF LUMBAR PUNCTURE IN PSYCHIATRY.—Pomeroy (*Jl. Nerv. Ment. Dis.*, April-May, 1907).—This is an account of one year's experience at the Manhattan State Hospital on the value of lumbar puncture in the diagnosis of the insane. This is an extensive paper and the material is large enough to give some warrant for the conclusions expressed. Especial attention is given to the technique and likewise to the danger attending the procedure. The literature is likewise carefully gone over so that the article gives in a compact form the knowledge that we possess on this subject so far as it concerns the insane. The following are some of the conditions: 1. Patients should not be punctured unless they can be put to bed. 2. To be of definite value the puncture must be repeated two or more times at an interval of at least ten days. 3. A constant negative finding is of more value than a positive one, for it rules out the presence of brain syphilis and parasyphilitic conditions. 4. In general paralysis the lymphocytosis is a constant and early sign and is usually associated with a heightened albumen content.

The same can be said for tabes. 5. Lymphocytosis may occur in secondary or tertiary syphilis without clinical evidence of involvement of the nervous system; also it may occur in patients who give evidence from scars or other signs of old syphilitic infections. As a rule the cellular increase in such cases is far behind that observed in paresis and there is very slight albumen increase. Where inflammatory brain syphilis exists albumen increase may also appear. 6. In arteriosclerotic insanity a positive finding points to syphilitic process such as softened foci following arterial disease. In brain tumors a negative finding is the rule. If a positive finding occurs a syphilitic basis for the process can be taken for granted. 7. Epilepsy shows negative findings; if otherwise the suspicion of brain syphilis is justified. 8. Alcoholism in all its varieties gives negative results; if the finding is positive and there are no signs of nervous involvement, an old syphilitic process may be taken for granted. Where symptoms of involvement of the nervous system are present general paralysis or brain syphilis is to be suspected. 9. A differential diagnosis is to be made between brain abscess and meningitis by the presence in the latter of increased cellular material. 10. It cannot be enough emphasized that the lymphocytosis presents a singular disease sign and only after consideration of all other clinical symptoms of the disease should it be used to construe the case. When the findings are construed with due care to the possibilities the results obtained from lumbar puncture are an important and oftentimes an invaluable aid to the diagnosis of obscure nervous and mental diseases. It is of especial importance in differentiating alcoholism, general paralysis, dementia praecox, epilepsy, brain tumor and brain syphilis.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

TREATMENT OF HYPOPION BY CAPILLARY DRAINAGE OF THE ANTERIOR CHAMBER.—Rollet and Moreau (*Rev. Gen. d'Ophthalm.*, November 30, 1906).—Speaking generally, when a layer of pus exists which reaches to two-thirds of the distance from the limbus to the pupil, the authors hold that the anterior chamber ought not only to be opened at once, but also drained. Capillary drainage is practiced by Rollet in the following manner: With a Graefe knife the cornea is punctured at the limbus at a point half way between the inferior border and the pupillary aperture. The knife passes through the purulent mass and the counter puncture is made at the limbus, and is enlarged by slightly raising the handle of the knife. The instrument is then withdrawn without cutting the remaining bridge of cornea. A horsehair of medium calibre and 5 or 6 cm. in length is introduced and passed across the anterior chamber through the pus and out at the wound of counter-puncture. The hair should extend on either side about 2 mm. beyond the cornea. The lids are closed and an occlusive dressing is applied to both eyes. The following day the

pus is found to have completely disappeared. The drain may be left in place for forty-eight hours.

It is necessary to curve the hair in order that it may more readily enter the point of exit. Sometimes it may be necessary to pass the needle of a syringe and then to pass the hair through its lumen. The needle is next withdrawn and the drain left in place. It is not necessary to remove the purulent mass, as it will have completely disappeared next day. Sometimes the cornea is sectioned by the drain, but when the hair becomes free cicatrization has already taken place behind it and there is never prolapse of the iris. The dressing is placed on both eyes in order to restrict the movements and to limit the possibility of the drain coming out. The authors publish particulars of 17 cases which have been treated with success by capillary drainage.

CASE OF RODENT ULCER OF THE CORNEA CURED BY TRANSPLANTATION OF CORNEAL TISSUE FROM THE RABBIT.—De Berardinis (*Annali di. Ottalm.*, 1906).—This was a case of Mooren's ulcer, traumatic in origin, in which ordinary therapeutic measures had failed to arrest the onward progress. De Berardinis excised the whole ulcerating surface by cutting 1 mm. down into the cornea in front of the infiltrated margin of the ulcer to a depth of $\frac{1}{2}$ mm., and then cutting horizontally outwards underneath the ulcer. A flap taken from the cornea of a rabbit was kept in position by sutures passed through the bulbar conjunctiva. The flap at first became swollen, infiltrated, and opaque, but eventually vascularized and became level with the cornea proper. At the date of writing the flap had so cleared up as to allow the angle of the anterior chamber and the iris to be made out through its substance.

PREVENTION OF INFECTION OF THE EYE BY THE PRE-OPERATIVE ADMINISTRATION OF POTASSIUM IODIDE.—Dor (*L'Ophthalm. provinciale*, December, 1906).—For the past five years Dor has given iodide of potassium in doses of 15 grains thrice daily for three days before operation, and within this time has operated on numerous complicated cases without the slightest accident. He relates the case of a double cataract in a man, aged 70, who had, in addition, purulent cystitis, prostatitis and perineal fistulae. The right eye had been lost through operation. Dor gave his usual prophylactic, and operated with the patient in a garret lighted only by means of a bull's-eye lamp and in an atmosphere impregnated with the odor of decomposing urine. The result was good.

CITY FOR THE BLIND (*Cleveland Plaindealer*, January 6, 1907).—A new and beneficial scheme on behalf of those bereft of sight has been initiated by the Queen of Roumania, who has conceived the idea of founding a city especially for the blind. All the blind are to be removed from the precarious and often miserable existence which has been theirs, and grouped together in a colony where their hardships will no longer weigh upon them and where they will find interesting occupation befitting their condition. One of the remarkable features of the colony is a new method of printing, which can be performed by the blind. It was invented by the Queen's blind secretary, whom she especially engaged to help her in her work.

OTOLOGY AND LARYNGOLOGY.

IN CHARGE OFWM. E. SAUER, M. D.

THE TREATMENT OF CHRONIC SUPPURATION OF THE MIDDLE EAR.—Dench (*N. Y. Med. Jour.*, May 4, 1907).—The conservative method of treatment of chronic middle ear suppuration, according to the author, is as follows. In the first place, thorough cleansing of the canal followed by syringing with a mild antiseptic solution, preferably, bichloride 1-10,000 to 1-6,000; in performing this irrigation it is best to use a small soft rubber bulb syringe and to use at least a half pint of the solution, sufficient to thoroughly cleanse the canal. The frequency of irrigation depends upon the amount of discharge; where it is profuse, every two hours during the day, and every four or six hours during the night. The treatment must often be varied to suit the case in question. If the discharge has only lasted five or six weeks and we find a small perforation, enlargement by free incision and subsequent irrigation will usually clear up the attack, but if we find granulation tissue present, and after removal and subsequent irrigation it reappears, then diseased bone is undoubtedly present and mild measures will be useless. Some patients complain of an intermittent discharge. Cases of this kind are most frequently seen in children, and we may employ the conservative method of treatment at the time of the discharge; then direct our measures of treatment to the upper respiratory tract, removing adenoids and enlarged tonsils if they exist. This plan of treatment will effect a cure in a few cases, but in the great majority of cases it will give only temporary relief and more radical treatment will be necessary. The author outlines several methods of operative procedure, but the thing in view in each method is to remove all diseased bone and granulation tissue and establish free drainage.

ON THE BENEFICIAL INFLUENCE OF THE INTERNAL ADMINISTRATION OF POTASSIUM IODIDE IN TUBERCULOSIS OF THE UPPER AIR PASSAGES.—Gruenberg (*Zeitschrift für Ohrenheilkunde*, April 1907).—For a number of years it has been the rule at the clinic of Prof. Korner in Rostock to prescribe potassium iodide in all cases of tuberculosis of the upper air passages. The beneficial effect of the administration of the iodide has been noted so frequently that the author believes it to be more than a mere coincidence. He reports in detail a number of cases of tuberculosis in which a decided beneficial influence was exerted by the iodide.

He concludes as follows: 1. A primary tuberculosis of the upper air passages is frequently (not always) beneficially influenced and cured by the internal administration of potassium iodide, with or without local treatment.

2. A tuberculosis of the upper air passages can heal spontaneously; therefore, the iodide cannot always with an absolute certainty, be held responsible for the result; but the fact that a decided improvement very frequently and very quickly follows the internal administration of the

iodide, after other measures have failed, there can no longer be any doubt as to its value in these cases.

3. These findings show that potassium iodide can no longer be regarded as a positive diagnostic agent in differentiating tuberculosis from, lues.

THE SAFEST METHOD OF USING PARAFFIN SUBCUTANEOUSLY.—Large (*Laryngoscope*, April, 1907).—The author describes Prof. Gersuny's latest method of paraffin injection as follows: The site to be injected is made aseptic by the use of soap, alcohol and bichloride solution. Two syringes are used, one large and one small, with a hypodermic needle made to fit both syringes. After boiling the syringes the small one is filled with Schleich's solution and the larger one with paraffin. He injects the Schleich's solution under the tissues, then aspirates and if the fluid withdrawn is clear, showing no blood vessel has been entered, the large syringe is attached to the needle, which is left in situ, and the paraffin (semi-solid) is injected slowly, great care being taken not to inject too much at a sitting. The Schleich's solution acts as an anesthetic, making the operation painless. The author has seen the paraffin used in various deformities, such as saddleback nose, atrophy of muscles of the face after frontal sinus operation, inguinal and femoral hernia, prolapse of the lower bowel, etc. Prof. Gersuny has not had a single bad symptom following these operations. To summarize: The rhinologist has a very valuable adjunct in paraffin, providing that it is not used in the hot liquid state; that not too much is injected at one sitting; that is injected according to Gersuny's method; that everything is thoroughly aseptic; that there be enough loose tissue to form the artificial tissue, and that in cases of atrophic rhinitis the disease has not progressed too far.

DISEASES OF THE NASO-PHARYNX IN INFANCY.—Morse (*Boston Med. Surg. J.*, April 18, 1907).—The author in a lengthy article emphasizes the importance of diseases of the naso-pharynx in infancy, and believes that they are often either entirely overlooked by the general practitioner, or at least insufficiently and improperly treated. He considers acute rhinitis a very serious thing during early infancy on account of the interference with respiration and nursing, and also because of the tendency to middle-ear complications. For treatment he advises an abundance of fresh air, food and stimulation. Diphtheritic rhinitis is much more common in infancy than is usually supposed. It is generally of a very mild type and usually not suspected until other children develop a pharyngeal diphtheria. Adenoids are perhaps more injurious in early infancy than in childhood, on account of the small post-nasal opening, and are often the cause of snuffles, frequent colds, cough, especially at night, and worst of all, otitis media. Removal of the adenoids causes a cessation of these symptoms almost immediately.

In acute pharyngitis, respiration and the taking of food are often seriously interfered with, and there is always a tendency for it to develop into a secondary bronchitis. Retropharyngeal abscess is frequently overlooked on account of insufficient examination. Unwillingness to take

food, difficult deglutition, difficult respiration, nasal cry and stridulous respiration are some of the principal symptoms. If suspected, the pharynx should be palpated.

Otitis media is not a disease of the naso-pharynx, but in infancy it is frequently secondary. It should be looked for in all cases of doubtful diagnosis, and the only way to examine properly is with a speculum and good light. The symptoms are not at all characteristic in early infancy. For treatment, the author recommends irrigation with warm water, heat externally, bromides internally, and paracentesis if necessary.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

M. F. ENGMAN, M. D.

COCCIDIOIDAL GRANULOMA.—BROWN (*Jour. Amer. Med. Assn.*, March 2, 1907).—This article contains a review of the eighteen cases contained in literature, with reports of cases fifteen and sixteen. The author states that the lesions of coccidioid granuloma are almost invariably progressive, with marked tendency to dissemination by lymph and blood-currents. Few instances are reported in which the lesions have healed. It is probable that the skin lesions are primary in some cases, particularly those where skin manifestations appear before other symptoms. The secondary lesions are undoubtedly due to emboli in the blood-current, and may occur anywhere. So far, no blood cultures have been made. Of all the cases, only one patient is positively known to be alive. He had local lesions on the foot, which was promptly amputated. There was no recurrence for two years. The majority of patients lived less than one year, and in all were internal lesions. The disease in California seems to be confined to the lower half of the San Joaquin valley, and has occurred chiefly among men working on railroad construction or irrigating ditches. No case has been found in women. The pericardium and heart alone have escaped involvement in the list of cases affected by the disease.

REMARKS ON SYPHILITIC ALOPECIA.—Klotz (*Jour. of Cutan. Dis.*, March, 1907).—The author summarizes his conception of syphilitic alopecia as follows:

1. Alopecia or loss of hair is not a common or regular symptom of the early stages of syphilis.
2. The slight loss of hair, which is constantly taking place in healthy individuals as the result of the physiological change of hair, continues its existence through and beyond the course of syphilis, and must be taken into consideration before attributing to syphilis a loss of hair, so slight as to pass unnoted or scarcely attract the patient's attention.
3. The same rule applies to numerous cases of slight seborrhoea of the scalp, which under ordinary conditions would not be considered worthy of notice or treatment.

4. In a certain number of cases, syphilis may be accompanied by a diffuse loss of hair, which may extend more or less over the entire scalp, varying in degree, similar to that observed after other infectious diseases, such as: typhoid fever, erysipelas, etc.

5. In the absence of any discoverable local changes in the skin, this alopecia is apparently the result of malnutrition of the hair, its appendages and the entire skin as part of a general modification of the entire organism by the infection with the virus.

6. This alopecia is, therefore, not strictly a symptom of syphilis, directly due to the virus, but rather a complication.

7. This alopecia is directly dependent upon and in most instances proportionate to the general symptoms, which may accompany the second period of incubation, and usually makes its appearance several weeks after the onset of the prodromal symptoms, similarly to other infectious diseases, like typhoid.

8. Although this alopecia may be very extensive and affect other portions of the body, it shows a tendency to more or less complete restitution of the hair, unless the patient is too advanced in years or is a subject of hereditary tendency to baldness.

9. An alopecia occasionally occurs in the form of ill-defined irregular, small, sometimes coalescent patches of baldness, distributed principally over the back and upper portions of the scalp, and giving it a mangy or moth-eaten appearance.

10. This alopecia is observed almost exclusively in syphilitics, and is so characteristic, that with extremely rare exceptions, it is diagnostic of syphilis of the affected individual, either acquired or hereditary.

11. This alopecia is a characteristic symptom of syphilis, and almost always occurs at a period more or less remote from the time of infection, usually not before the end of the first year and up to the end of the second year. It generally follows a very tedious course, although terminating in restoration of the hair.

12. In the absence of any discoverable anatomical changes of the skin, due to a local specific process, it is very difficult to explain the origin of this alopecia in patches.

MEDICAL LAW AND MEDICAL JURISPRUDENCE.

IN CHARGE OF

IRVIN V. BARTH, LL. B.

QUALIFICATIONS OF EXPERTS.—*Smith v. State*, (*Court of Criminal Appeals of Texas*, 1907) 99 S. W. 100.

Appellant had been convicted of murder in the first degree, and his punishment assessed at life imprisonment in the penitentiary. On the appeal he complained that the trial court had erred in excluding the testimony of a certain physician, an expert witness, regarding the fatal character of a wound inflicted. The Appellate Court sustained the ruling of the trial court and for further grounds held:

"Besides, we do not believe that this witness sufficiently qualified as an expert to give an opinion from personal observation or upon a hypothetical case stated. Not being a graduate of any school of medicine, not being shown to have read any books on surgery, or to have been at all familiar with gunshot wounds, his mere license to practice medicine, even predicated on the granting of this license by a medical board, we do not believe qualified him as an expert. *Rice v. State*, (Tex. Cr. App.) 94 S. W. 1024."

NOTE. The case of *Rice v. State*, cited in the above was the subject of our consideration in the March issue of this Journal, Volume XIV, Number 3. In the note to that case it was observed that "in every field of human activity where the testimony of an expert may be required he may be qualified as such either (1) by reason of a professional, scientific or technical training, or (2) by practical experience in the subject matter of his testimony, which gives to him an especial knowledge not shared in by men in general."

The principal case affords an apt illustration as to the application of these tests for qualifying experts. Here the physician did not claim a practical experience with reference to the subject matter of his testimony, nor was it shown that he had "read any books on surgery" or that he was a "graduate of any school of medicine," — he could qualify only as having been licensed by a medical board to practice his profession.

It is gratifying to note this somewhat advanced position taken by the Court, though it be only a dictum. While the Courts have been by no means uniform, they have generally held that if a person is shown to be a practicing physician, it is sufficient, in the absence of conflicting proof, to qualify him as a medical expert. "Physicians and surgeons," says an eminent author, "are presumed to be acquainted with all matters pertaining to their profession, and to be competent to testify concerning them; and their opinions are admissible in evidence upon questions that are particularly and legitimately embraced in their profession and practice. It is not necessary that the medical witness should be a specialist, or should have made a specialty of the particular disease involved in an inquiry to render his testimony admissible as that of an expert; and a person having the requisite qualifications is not debarred from giving an opinion, in the absence of a statutory prohibition, by the fact that he is not a practitioner, licensed or otherwise; and his reputation has nothing to do with his competency."

In Missouri, the case of *Seckinger v. Manufacturing Co.*, (1895) 129 Mo. 590, serves in a measure to illustrate the attitude of our Courts generally. There Burgess, J., said:

"This witness had been a practicing physician for twenty-five years. He stated that he was not a specialist for lung trouble, and, not being an expert in that line, he turned him (plaintiff) over to Doctor Foster. All the witness stated was that he was not an expert in the treatment of consumption. He was clearly as competent, from his long experience as a practitioner, to give his opinion as to the cause of the consumption in plaintiff, as he was to give his opinion as to the cause of any other disease in any of his patients, although he may not have had any experience in the

treatment of such disease. It would seem that no error was committed in permitting this evidence to go to the jury."

It must here be observed that the question of the competency of a physician to testify as an expert is one left to the sound discretion of the trial court — the weight to be given to the evidence of the expert, once judicially declared to be competent, rests entirely with the triers of the facts. And while this discretion, resting with the trial judge, as to the competency of the witness to testify is circumscribed by established principles of law, while, in short, it is not an arbitrary discretion, nevertheless it may act within a broad sphere and will not be declared by the appellate tribunal to have been unlawfully exercised unless its abuse was palpable. Thus it lies greatly within the power of the trial court to require the strictest tests of competency. It would hardly be declared an abuse of discretion for the court to insist upon a showing of special skill on the part of a physician where he seeks to qualify for the purpose of testifying concerning a subject matter itself highly technical and distinctive. With the progress and development of the arts and sciences the professions are so readily yielding to specialization, that an expert in one branch is often entirely unfamiliar with even the rudiments applicable to another branch of the same profession. Those courts which in the exercise of their judicial discretion would take cognizance of this fact must most assuredly be in accord with the logic of the law.

REVOCATION OF LICENSE TO PRACTICE.

STATUTE OF LIMITATIONS.—State Medical Examining Board et al. v. Stewart (*Supreme Court of Washington*, 1907) 89 Pac. 475.

Appellant's license to practice medicine and surgery had been revoked by the State Medical board on the ground of unprofessional and dishonorable conduct. By statute, it was provided that a conviction of any offense involving moral turpitude should constitute "unprofessional or dishonorable conduct." Appellant contended that the statute of limitations applicable to ordinary civil actions could be invoked in his defense here. The court in passing upon this matter, said:

"It is unnecessary for us to decide the technical question presented whether this is a civil action, within the meaning of the statute, because we are satisfied such statute does not apply to this case in any event. The object of the statute was to prevent immoral or dishonorable persons from procuring licenses to practice medicine in this State, and, if persons having licenses were found to be unprofessional or dishonorable, then their licenses might be revoked. The character of the person at the time the charge of unprofessional conduct is made controls his right to the license. The character is proved by his conduct in the past. A conviction of any offense involving moral turpitude is made conclusive evidence of unprofessional conduct. It is not contemplated by the statute that the examining board shall try the accused and find him guilty of an offense involving moral turpitude when there has already been a trial and conviction. Such former conviction by a court of competent jurisdiction is conclusive evidence of the moral character and professional conduct of the accused at the time the charge is made against him. The statute, therefore, constitutes a rule of evidence in such cases, to which the statute of limitations does not apply."

BOOK REVIEWS.

HANDBUCH DER ROENTGEN-LEHRE, ZUM GEBRAUCHE FUER MEDIZINER. Von Dr. Hermann Gocht. Stuttgart. Verlag von Ferdinand Enke. 10 marks.

The author first gives an accurate description of the various appliances used to produce the Roentgen Ray. This description is practical, and contains many valuable hints. The application of this light to the uses of medicine and surgery is then carefully described. Appended to the article is a most valuable bibliography of writings on the use of the Roentgen Rays.

THE IMMEDIATE CARE OF THE INJURED. By Albert S. S. Morrow, M. D., Attending Surgeon to the Workhouse Hospital and to the New York City Home for the Aged and Infirm. Octavo of 340 pages, with 238 illustrations. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$2.50 net.

A good book for handy reference for the trained nurse, and more skilled laity, giving clearly many valuable first aid directions. In attempting to make it available for the non-medical the greater part of the book is given to a study of the anatomy and physiology, which is well done, but the chief value of the work lies in the numerous illustrations which explain the text. A section of the work is given to a brief description of the stretcher drill as used in the United States Army; another section on poisons and antidotes is quite complete.

THE EAR AND ITS DISEASES. A Text-Book for Students and Physicians. By Seth Scott Bishop, B. S., M. D., LL. D., Honorary President of the Faculty and Professor in the Post-Graduate School and Hospital of Chicago; Surgeon to the Post-Graduate Hospital and to the Illinois Hospital, etc. Illustrated with 27 Colored Lithographs and 200 Additional Illustrations. Royal Octavo, 440 Pages. Bound in Extra Cloth. Price, \$4.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street Philadelphia, Pa.

A little more than 2 years ago the 3rd edition of Dr. Bishop's text book on the diseases of the Nose, Throat and Ear, was reviewed in these columns. This volume, devoted exclusively to the ear, has been considerably enlarged. The anatomy and physiology of the ear have been very clearly presented. The author lays stress only on those methods which have given him the best results. In short, this little volume is the most practical little work on otology, that has recently been published. The only criticism we have to offer, is the limited space devoted to the otitic intracranial complications. For the student and general practitioner it is indeed an admirable work.

A TREATISE ON THE MOTOR APPARATUS OF THE EYES. Embracing an Exposition of the Anomalies of the Ocular Adjustments and Their Treatment, with the Anatomy and Physiology of the Muscles and Their Accessories. By George T. Stevens, M. D., Ph. D. Illustrated with 184 Engravings, some in colors. 496 Pages, Royal Octavo. Bound in Extra Cloth, Beveled Edges, \$4.50 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

Dr. Stevens' work is a systematic development of the subject of adjustments of the eyes. Commencing with the comparative anatomy of the motile apparatus as it is found in the lower animal classes, and passing to the anatomy of the muscular, vascular and nervous apparatus engaged in the movements of human eyes, he advances from the physiology of adjustments to the subject of perspective and to the

psychology of sight, and at length to the classes of anomalies as they arise from variations from normal types.

As is well known, Dr. Stevens is one of the pioneer workers in this subject and has contributed a great deal to the advancement of our knowledge.

The illustrations, many of which are in colors, serve well to elucidate the text. The book is well worthy of careful perusal.

RETINOSCOPY (OR SHADOW TEST) IN THE DETERMINATION OF REFRACTION AT ONE METER DISTANCE WITH THE PLANE MIRROR. By James Thorington, M. D.
Fifth edition revised and enlarged. P. Blakiston's Son and Co., Publishers, 1012 Walnut Street, Philadelphia.

Dr. Thorington's little work is so well and favorably known to ophthalmologists that extended notice of this (fifth) edition is unnecessary. Despite the addition of considerable new matter the book has been reduced from 89 to 67 pages, a result attained by the use of smaller type and narrower spacing. The DeZeng electric retinoscope is described and its use endorsed. There are several new illustrations.

LECONS DE THERAPEUTIQUE OCULAIRE. By Dr. A. Darier. 3rd edition, entirely rewritten. Price 12 francs. Published at the office of La Clinique Ophthalmologique, 9 Rue Buffault, Paris.

Five years have elapsed since the second edition of Dr. Darier's well-known "Lecons"—years significant of much that is new and valuable in ocular therapeutics. The high esteem in which the work is held not only in France but in English-speaking countries as well, is attested by the fact that the English translation, by Sydney Stephenson, was out of print shortly after its issue.

Serotherapy, tuberculine, the organic silver salts, subconjunctival injections of dionin, sodium iodide, tuberculine, etc., intravenous injections of soluble mercurial salts, sodium salicylate, collargol, sera, etc., and the application of radium in trachoma and superficial epitheliomata are among the subjects of recent discussion and interest included.

The fact that the book is really a compilation of lectures, explains the rather diffuse style in which it is written. And yet this very form adds much to its readableness. When Dr. Darier champions a remedy he does so in full armor; and let those who come out to oppose him be well prepared.

The work is indispensable to the ophthalmologist who desires to keep abreast of the times in all recent advances of ocular therapeutics.

MAKERS OF MODERN MEDICINE. By James J. Walsh, M. D., Ph. D., LL. D.
Fordham University Press, 1907. New York.

The opening chapter of this book is an abstract of a lecture delivered by Dr. Walsh in the course on medical history at Fordham University Medical School, New York. The material for the article on "The Irish School of Medicine" was gathered for a lecture delivered before the historical club of Johns Hopkins University. The author does not claim that these are the only makers of modern medicine who deserve place, but his material reached the size of a volume covering the following: Morgagni, father of pathology; Auenbrugger, inventor of percussion; Jenner, discoverer of vaccination; Galvani, founder of animal electricity; Laennec, father of physical diagnosis; Muller, father of German medicine; Schwann, father of the cell doctrine; Claude Bernard, discoverer in physiology; Pasteur, father of preventive medicine; O'Dwyre, inventor of intubation. We agree with the author that "without history a man's soul is purblind, seeing only things which almost touch his eyes." The book is a most interesting volume.

ANATOMICAL NOMENCLATURE WITH SPECIAL REFERENCE TO THE BASLE ANATOMICAL NOMENCLATURE (B N A). By Lewellys F. Barker, M. D., Professor of Medicine, Johns Hopkins University; formerly Professor of Anatomy in Rush

Medical College, Chicago. With Vocabularies in Latin and English. Two Colored and Several other Illustrations. Cloth, \$1.00 net. P. Blakiston's Son & Co., Publishers, 1012 Walnut Street, Philadelphia.

This is the only work in English in which the Basle anatomical nomenclature referred to as (B N A), is explained and its purposes described and its vocabulary given. In consequence, it is an exceedingly valuable book to students of anatomy.

TEXT-BOOK OF PSYCHIATRY. A PSYCHOLOGICAL STUDY OF INSANITY FOR PRACTITIONERS AND STUDENTS. By Dr. E. Mendel, A. O. Professor in the University of Berlin. Authorized Translation. Edited and enlarged by William C. Krauss, M. D., Buffalo, N. Y., President Board of Managers Buffalo State Hospital for Insane; Medical Superintendent Providence Retreat for Insane; Neurologist to Buffalo General, Erie County, German, Emergency Hospitals, etc. 311 Pages. Crown octavo. Extra Cloth. \$2.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

This is a very adequate translation of Mendel's well-known lectures on psychiatry. Its special claim to notice is that it contains Mendel's classification, the usefulness of which an experience of thirty years' teaching has seemed to warrant. The book contains practically no clinical descriptions and no extended presentation of pathology or anatomy. For the latter two omissions we can be grateful. A large portion of the early pages is given up to definitions and to psychological descriptions. These are neither more nor less clear and serviceable than are found in the majority of text books on insanity. Their utility is questionable. They have a traditional right to occupy the forepart of a book on psychiatry which apparently no writer has had quite the courage to pass over. The descriptions of the various types of insanity are sufficiently clear to those who have an opportunity of seeing a large clinical material, to others they are of no special value. The omission of dementia precox is noteworthy especially in a book appearing at the present time. A larger importance is given to paranoia than its clinical significance at the present time would seem to justify. The chapter on dementia paralytica is easily the best in the book, as it should be, for Mendel was one of the first to give to this disease a definite clinical place of its own. It is difficult to form a just critical estimate of a book of this kind, for its utility is obviously limited to those who have an opportunity to hear Mendel demonstrate cases or those who use it as a guide in work of their own. As a text book, to stand alone and to teach students anything about the insane, it certainly can not be said to fulfill its purpose. Text books of this nature may be looked upon as the expression of a personal view of insanity by one who has given much that is of value to this department of medicine, and as such it has a certain distinct, though limited value. To one who has been a student of Mendel it will recall many an interesting clinical hour filled with the presence of a notable and kindly teacher. Perhaps for this reason alone the book should receive a hearty welcome and its translator be gratefully thanked.

THE PRACTICE OF OBSTETRICS. IN ORIGINAL CONTRIBUTIONS. By American Authors. Edited by Reuben Peterson, A. B., M. D. Professor of Obstetrics and Gynecology in the University of Michigan, Ann Arbor, Mich. Illustrated with 523 engravings and 30 Full-Page Plates. Lea Brothers & Co., Philadelphia and New York. 1907. Price \$6.

The companion volume to Bovee's Practice of Gynecology, which deals with obstetrics and is edited by Reuben Peterson, is in many respects an excellent text-book. Among the collaborators are C. S. Bacon, M. Crockett, W. A. N. Dorland, H. Ehrenfest, H. F. Lewis, W. P. Manton, J. F. Moran, B. R. Schrenk and A. S. Warthin. If anything is deserving special praise it is the wisdom of the editor in selecting an anatomist, Dr. G. C. Huber, to write the anatomical and embryological parts. This has been done with unusual clearness and thoroughness. The editor has also carefully avoided the repetitions so frequently found in

compilations by various authors. Special praise should be given the methodical way in which each chapter has been worked out. The illustrations have been carefully selected. If there are any errors, they are of omission rather than commission. We miss several points concerning the new-born child, such as adherent prepuce, tongue-tie and their treatment; also illustrations of the technique of Caesarian section, which certainly is more deserving of exact description than symphysectomy. (F. J. TAUSSIG.)

A MANUAL OF PATHOLOGY. By Guthrie McConnell, M. D. W. B. Saunders & Co., Philadelphia and London, 1906.

This manual gives in about 500 pages, the main and salient points of general and special pathology. The diction is always short and concise, but differs from that of other manuals by its clearness and definiteness. The reviewer must, however, say that in some cases the author has been too short. For instance, in the matter of arterio-sclerosis where the latest results of investigation should have been mentioned for differential purposes. The reviewer knows how difficult it is to concentrate in a few lines a problem that would take many pages to consider it in its entirety. It depends upon the personal equation of the writer, to which features he attributes the greatest importance. So any manual will always be more or less subjective. That the author has tried to avoid this danger is very evident; that he did not succeed now and then is no blame. He was wise in using for his illustrations mostly those from other well known sources. Their reproduction is perfect, and forms a valuable and pleasing help to the text. The book will be welcome to students of pathology, and will offer great help to the demonstrator and teacher.

HANDBUCH DER GEBURTSHILFE. Herausgegeben von F. von Winckel, Professor der Geburtshilfe an der Universitaet in Muenchen. Verlag von J. F. Bergmann in Wiesbaden.

Another volume of 900 pages is before us, representing the first part of the third volume of this gigantic work. It is devoted to a most minute consideration of obstetric operations. A chapter on antisepsis and asepsis, etc., from the pen of Wyder, is followed by an excellent description of all the available methods for artificial interruption of pregnancy, written by Sarwey. Wyder considers episiotomy and mechanical dilatation of the cervix, Lindfors of Upsala, external and internal version, while the chapter on bimanual version is contributed by the editor von Winckel. The next three long chapters are devoted to perforation, cranioclasty, decapitation, embryotomy and symphysiotomy (by Kroenig), followed by shorter essays of Franque on the reposition of prolapsed fetal parts and the prolapsed cord. A chapter of 200 pages, written by Wyder, dwells on the extraction of the fetus in breech presentation and by means of the forceps. Of special interest is the following chapter on vaginal Caesarian section, contributed by the inventor of the operation, Duehrssen. The articles on the Porro operation and on conservative abdominal Caesarian section are written by Schenk and Kleinhans respectively. Strassmann describes the artificial removal of the placenta and the volume finally is concluded with a description of the various methods of anaesthesia practicable in obstetric work contributed by Wyder. This brief enumeration clearly shows the wealth of information embodied in this new volume.

OPERATIVE GYNECOLOGY. By Howard A. Kelly, A. B., M. D., LL. D., F. R. C. S. (Hon. Edin.), Professor of Gynecological Surgery in the Johns Hopkins University, etc., etc. With 11 plates and 703 original illustrations, for the most part by Max Broedel. Second edition, revised and enlarged. Two volumes. New York and London, D. Appleton and Co. 1906.

It is nine years since this work appeared in its first edition. The great advance of gynecology and surgery during the past decade has made a revision of the work inevitable. But this new edition differs from the first not alone in that

it embodies the most advanced teachings of gynecology, it also offers many improvements in its make-up. The general practitioner especially will be interested in the fact that new chapters have been added on such subjects as Local and Palliative Treatments, Displacements and Pessaries, Menstruation and its Anomalies. A new chapter on Bacteriology has been written for this work by W. W. Ford and one on the Use of the X-Ray in Diagnosis, by F. H. Baetjer. Dr. George Gellhorn, of St. Louis, has supplied a very interesting chapter on Diseases of the Hymen, Dr. H. W. Cook on Anesthesia.

Nothing new can be said in praise of this work. Kelly's Operative Gynecology has gained for itself a prominent place in the medical literature of the world. We can not doubt that this second edition will further help American gynecology to receive proper appreciation on the part of the gynecologists of Europe.

THE PRACTICE OF OBSTETRICS. DESIGNED FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE. By J. Clifton Edgar. Professor of Obstetrics and Clinical Midwifery in the Cornell University Medical College, etc., etc. Third edition, revised. With 1279 illustrations, including five colored plates and 38 figures in colors. Philadelphia, P. Blakiston's Son & Co., 1906.

Nothing could attest more forcibly to the value of this book than the striking fact that within three years the appearance of a third edition was necessitated by the sale within this time of 11,000 copies of the work. In order to meet the criticism that the book is too large, the author has reduced its size in this new edition by 100 pages. This he achieved, in spite of the fact that much new material and 140 new illustrations were added, by rewriting, condensing a good part of the book and by omitting some now obsolete matter.

GENITO-URINARY DISEASES AND SYPHILIS. By Henry H. Morton, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island and Kings County Hospitals, and the Polhemus Memorial Clinic. Illustrated with 158 half-tone and photo-engravings and 7 full-page colored plates. Second edition, revised and enlarged. Royal octavo, 500 pages. Bound in extra cloth. Price, \$4.00, net. F. A. Davis Company, publishers, 1914-16 Cherry Street, Philadelphia, Pa.

In this edition much material has been added to the subjects considered as they are understood at the present time. The addition comprises especially the development and perfection of the surgical operations for prostatic hypertrophy and the knowledge of the surgical diseases of the kidney in regard to both diagnosis and treatment.

Dr. Morton presents the diseases of the genito-urinary organs and syphilis in a manner that makes the book not only a very practical text-book, but of value as a reference work.

ESSENTIALS OF GENITO-URINARY AND VENEREAL DISEASES. S. S. Wilcox. Saunders' Question Compends. W. B. Saunders Company, 925 Walnut St., Philadelphia.

Being arranged on the question and answer plan, this book adequately serves its purpose, containing those subjects upon which specialists are agreed; and may be relied upon as eminently trustworthy, as well as condensed without being tiresome.

GENITO-URINARY DISEASES AND SYPHILIS. Hirsch. Blakiston's Quiz-Compends; P. Blakiston's Son and Company, 1012 Walnut street, Philadelphia.

This little book of 351 pages is well arranged and concise, yet complete. There is epitomized in it the great mass of matter that we find more fully considered in the

standard text-books. It is noteworthy that the very latest advances in this line of work are accurately described.

PHOTOSCOPY (SKIASCOPY OR RETENOSCOPY.) By Mark D. Stevenson, M. D., Ophthalmic Surgeon to the Akron City Hospital; Oculist to the Children's Home, Akron, Ohio. Octavo of 126 pages, illustrated. Philadelphia and London. W. B. Saunders Company, 1906. Cloth, \$1.25 net.

This little book of 126 pages is rather a personal account of the author's experiences with retinoscopy—or as he prefers to call it, "Photoscopy"—than a formal treatise on this indispensable method of estimating refraction. It is written in an easy conversational style and will doubtless prove attractive to beginners. The illustrations are adequate, in the main. Typographical errors are comparatively few, but we note on p. 91, line next to the bottom, that "in" is printed for "is."

BAKTERIOLOGISCHES TASCHENBUCH. Von Dr. Rudolph Abel. Wuerzburg, A. Stuber. 10 Auflage, 1906.

The value of this little book has been so often emphasized for its former editions, that it need not again be mentioned for the tenth. The changes, of course, are those that late work has made necessary, and are utilized in the new edition. Even *spirochaete pallida* has found its place; but it is here where the author has not been up to date in mentioning and detailing for staining in tissue the method of Bartarelli and Volpius, and not saying a word about *Levadiitis*' procedure, that has made its way over the whole world in the past two years. This is a little flaw, that the next edition must correct.

TEXTBOOK ON THE PATHOGENIC BACTERIA. By Joseph McFarland, M. D. W. B. Saunders & Co., Philadelphia and London, 5th Edition, 1906.

McFarland's textbook has, in its fifth edition, reached a size about doubling that of the first issue. Many little alterations will be found, particularly in the review of the immunity theories and their practical application. The representation of this subject is much improved in clearness above that in the 4th edition; still it is yet influenced by the mistake of treating principal points on the same basis as details. The attempt to bring as many of the latter as possible obviates the purpose to impress the trend of the thought that has led to the theory, and thus to enable the reader to appreciate its meaning and justification. The changes and additions to the chapters on single pathogenic bacteria conform to the advance made during some years in our knowledge. In some cases, for instance, the *bacillus cholerae suis*, the representation is not up to date, as the work done at the Bureau of Animal Industry has not been referred to. Perhaps the 6th edition will do this.

A MANUAL OF NORMAL HISTOLOGY AND ORGANOGRAPHY. By Charles Hill, M. D. W. B. Saunders & Co., Philadelphia, and London, 1906.

The book was written in the interests of elementary students, and is intended to serve as a guide in class work for teacher and student. Accordingly it offers in short and concise way the elementary parts of histology and normal anatomy. The representation is lucid and objective, as it must be. The illustrations, especially of histologic material, are more or less schematic, and hardly serve the purpose of demonstrating details. One point must be mentioned as unique, the chapter on the histology and anatomy of mouth, teeth, tongue and pharynx, that is dealt with at considerable length. In other compends with similar object these subjects are usually altogether omitted or touched only with a few words. There is no reason why Hill's book should not make its way. It is, of course, not a book for study.

A TEXTBOOK OF PATHOLOGY. By Alfred Stengel, M. D., 5th Edition. W. B. Saunders & Co., 1906, Philadelphia and London.

The character of the 5th edition of Stengel's text book has remained the same. Comparatively few changes have been made, especially in some of the chapters on general pathology. The other changes concern some illustrations and some additions or corrections made necessary by the work in pathology during the past few years. What was said about the former editions, obtains for this. As no absolute necessity for a new edition can be seen, as far as the subject is concerned, the appearance of this new issue is evidence of its wide distribution, a matter of satisfaction to the author and the publishers.

THE NURSING; THE FEEDING AND HYGIENE OF PREMATURE AND FULL-TERM INFANTS. By Pierre Budin, Professor of Obstetrics, University of Paris; Director of the Clinique Tarnier; Member of the Academy of Medicine. Authorized Translation by William J. Maloney, M. B., Ch. B., Fellow of the Obstetrical Society of Edinburgh; Ettles Scholar, Houldsworth Research Scholar, etc. With an introduction by Sir Alexander R. Simpson, M. D., LL. D., D. Sc., Emeritus Professor of Midwifery and Diseases of Women and Children, University of Edinburgh. One hundred and eleven diagrams in color and other illustrations. pp. 199. Price \$6.00. London: The Caxton Publishing Company. New York: The Imperial Publishing Company, 1907.

To those who have followed Professor Budin's work in his fight against infant mortality in France, the news of the appearance of an English translation of his book, "The Nursing," will be most welcome. Budin's so-called "Consultations for Nurseries," which are, in reality, polyclinics, where systematic instruction is given to mothers in the art of feeding and properly caring for their children, have become enormously popular in France, and are being established in other countries as well. That they have saved many hundreds of lives cannot be questioned, and the debt that the French community owes to Budin cannot be easily measured. Now he has put the medical profession under many obligations by the publication of his lectures on the nursing. In the original, the book makes most delightful reading, and it is a pleasure to be able to say that in this case the translation has been worthy of the book. The first four lectures deal with the study of premature children with special consideration of their temperature and their chilling, their feeding and the diseases to which they are especially liable. The lectures are clear and explicit, and the conclusions reached are based upon an exhaustive study of enormous numbers of cases. In addition there is a discussion of the best arrangements of a ward for the care of weaklings in hospitals. The other six lectures are devoted to a consideration of the normal infant. Budin is a firm believer in the wisdom of insisting upon mothers nursing whenever this is at all possible, and lays special emphasis on the fact that by proper care of the mother's diet and general mode of life, much can be done to stimulate the flow of milk. He is especially emphatic in his assertion that having a little breast milk is of enormous value to the infant, and that every effort should be made to get it. With reference to substitute feeding, Budin's plan seems almost incredibly simple, especially to those of us accustomed to the elaborate percentage system of modification of the American School. Budin uses UNDILUTED STERILIZED milk; which he gives in quantities adapted to the child as determined by age and weight. The problem of the proteid is apparently not a problem at all. To those who insist that the feeding of infants is necessarily a process of complex algebraic formulæ, the exposition of Budin's views will come as a distinct shock under any circumstances. The work is a most suggestive one, and the English speaking profession is really under many obligations to Dr. Maloney for a most excellent translation. The statistical material has been collected into a series of appendices so as to make references easy. The book is well illustrated, with a series of graphic charts in color, which add considerably to the clearness of the case reports. The book work itself is most excellent, and as a whole, the work is one to be most heartily commended to those interested in the question of hygiene of infants.

TUTTLE ON DISEASES OF CHILDREN. A POCKET TEXT-BOOK OF DISEASES OF CHILDREN. By George M. Tuttle, M. D., Attending Physician to St. Luke's Hospital, the Martha Parsons Hospital for Children and Bethesda Foundling Asylum, St. Louis, Mo. New (2d) edition, thoroughly revised. In one 12mo. volume of 392 pages, with 5 plates. Cloth, \$1.50 net; flexible leather, \$2.00 net. Lea's Series of Pocket Text-Books, edited by Bern. B. Galaudet, M. D. Lea Brothers & Co., Philadelphia and New York, 1907.

The fact that this book is now in its second edition affords an index of the reception it was accorded by the profession. It is a pleasure to find in a manual of this size as complete an epitome of modern pediatric thought as this one affords. It is noteworthy that condensation has not been pushed to the point where lack of clearness would result. Special attention has been paid to the question of physiology of the infant and its nutrition. The acute infections are thoroughly described. The make-up of the book is excellent and Dr. Tuttle deserves the thanks of the profession for this contribution to the literature.

INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. 8vo., pages 624. Price \$3.00, by E. B. Treat & Company. E. B. Treat & Co., 24 W. 23d street, New York.

This attractive volume is the twenty-fifth edition of this series. Its contributors being among the recognized men of ability in their special field, places the review of each individual branch of medicine among the best reviews extant at the present time. The completeness and exhaustiveness of this year book combined with the paged index makes it one of the best and the most convenient ready references to the latest literature in almost any division of medicine or surgery. The detailed methods of treatment including newer drugs and recent development in surgical technique make this edition one which can be especially recommended to progressive students of medicine and general practitioners.

GYNAEKOLOGISCHE RUNDSCHAU. Zentralorgan fuer Geburtshilfe und Frauenkrankheiten. Herausgegeben von Dr. Oskar Frankl in Wien.

The number of German special journals on gynecology and obstetrics has been enriched by a new one. It differs from all the existing publications of this specialty in that it is devoted chiefly to articles dwelling on subjects of the borderlands. The first six numbers which, so far, have appeared, contain most valuable contributions on topics which demonstrate the close relation existing between gynecology and internal medicine, neurology, pediatrics and medico-legal medicine. This feature makes the new journal one of particular interest and importance to the general practitioner. It appears semi-monthly and costs 15 marks annually.

THE HEALTH—CARE OF THE BABY. A HANDBOOK FOR MOTHERS AND NURSES. By Louis Fischer, M. D. Author of "Infant Feeding in Health and Disease," etc. New York and London. Funk and Wagnalls Company, 1906. Pp. 144. Price 75 cents, net.

This little monograph contains a wealth of information of value to young mothers and nurses. The first part is devoted to the general hygiene of the infant. Part two contains a very good resume of the complex question of infant feeding described with clearness and intelligence, while part three is devoted to a description of every disease and emergency conditions. The book can safely be recommended.

CARR'S PEDIATRICS. The Practice of Pediatrics by Eminent Authorities, Edited by Walter Lester Carr, M. D., Consulting Physician to the French Hospital; Visiting Physician to the Infants' and Children's Hospital, New York.

In one very handsome octavo volume of 1014 pages, with 199 engravings and 32 full-page plates in colors and monochrome. Cloth, \$6.00, net; leather, \$7.00 net; half morocco, \$8.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1906.

At a time when text books on diseases of children are appearing with great frequency, one looks for signs of individuality in any new-comer. The present work differs from many text books, in that it really represents a series of monographs on the more important subjects of pediatrics.

The chapters on Infant Feeding, by Southworth, are most excellent, lacking little in completeness and showing a tendency to avoid extremes which cannot be too highly commended. The diseases of the alimentary tract are handled in a masterly manner by Boviard. It would be difficult to find a better summary or a clearer presentation than this. The infectious diseases are adequately discussed though their presentation is naturally, rather schematic. The chapters on diseases of the heart and blood vessels, by F. J. Poynton, of London, constitute a most important contribution to the literature. In none of the modern text books of Pediatrics is a better presentation of this subject to be found. Attention should also be directed to McCarthy's monograph on diseases of the nervous system. As a whole, the work comes as a welcome addition to our literature and the enthusiastic reception which it has already met is most fully justified.

The book work itself is sumptuous.

THE OPERATION ROOM AND THE PATIENT. By Russell S. Fowler, M. D. W. D. Saunders Co., Philadelphia and London, 1906.

Dr. Fowler did not live to accomplish what was evidently intended for a sequel to this volume. This eminent surgeon died after dedicating this valuable work to the internes and nurses, whom he had helped to train, and to those who were to still undergo training. He stated that this work was to be the forerunner of a much larger volume upon postoperative treatment.

The volume is not only interesting in the departed author's well-known style, but is valuable as well. The first illustration in it depicts the model operating room and its accessory chambers. It could be studied with profit by all who contemplate new hospital buildings and equipment. Not only is the operating room its chief subject, but the instruments and the various supplies which go to make up the full equipment of the operator. It seems that nothing has been forgotten, which is intended for use on the patient, at or after the operative procedure. The illustrations are very numerous and depict most fully the various positions which are useful in surgical examinations, operations, and after-treatment. The work is different from any other that has preceded it and will find a place in the library of every surgeon.

THE TECHNIC OF OPERATIONS UPON THE INTESTINES AND STOMACH. By Alfred H. Gould, M. D., of Boston, Mass. Philadelphia and London: W. B. Saunders Company.

This work, while not quite so large as two similar books which appeared a few years ago in the French language, is in every other respect a superior to them. It has the great value of not being simply a re-hash of every method, good and bad, which has ever appeared for doing surgical work upon the stomach and intestines. In other words, only the best and most useful procedures have been incorporated in it, and there are, in addition, several of the author's new devices and means of doing things. The illustrations are admirable, for the most part, some of them being executed in colors, while none of them, as in the case with the two French works above referred to, can be called distinctly bad. The chapter on intestinal repair, illustrated with many micro-photographs, is worth alone the price of the volume. The author has been experimenting for three years along this line, hence much of that offered, and especially is this true of the illustrations, which can be said to be absolutely new and original. Where this is not true, full credit is given the author whose work has been used. The

author is a Bostonian, which explains the fact that the complexion of the book is largely influenced by his surroundings; almost all of the prominent Boston surgeons are given credit for suggestions proffered or favors shown Dr. Gould in building up his book. Such masters of gastric intestinal surgery as W. J. Mayo, J. M. T. Finney and Gregory Connell are also given credit for valuable suggestions.

A COMPEND ON BACTERIOLOGY, INCLUDING ANIMAL PARASITES. By Robert L. Pitfield, M. D., Pathologist to the Germantown Hospital and the Hospital for Lung Diseases, Chestnut Hill. Pathologist to the Widener Memorial School. Late Demonstrator of Bacteriology at the Medico-Chirurgical College, Philadelphia. Four plates and 80 other illustrations. Octavo Volume. 222 pages. P. Blakiston's Son & Company, 1012 Walnut st., Philadelphia, \$1.00 net.

As an up-to-date compend on this rapidly developing subject this book is one of the most advanced at the present time. Besides the detailed consideration given on the purely bacteriological division of this subject it also includes the literature of the time on the serum reaction, blood cultures, opsonins, etc., which are being so rapidly introduced into the practical field of Clinical Medicine. The late methods of technique and the newer apparatus in this line, besides the numerous cuts, are points which make this volume important and valuable as a ready reference for this sort of information.

THORNTON'S POCKET MEDICAL FORMULARY. New (8th) edition, revised to accord with the new U. S. Pharmacopeia. Containing about 2,000 prescriptions with indications for their use. In one leather bound volume. Price \$1.50 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1907.

This little formulary is a revision of previous editions of its kind based upon the changes made in the U. S. Pharmacopeia. It follows the same plan as previous editions giving classified number of the standard prescriptions and their special indications for each of the separate diseases which are arranged in alphabetical order.

CHEMISTRY. General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopeia. A manual of the Science of Chemistry and its Applications to Medicine and Pharmacy. By John Attfield. New (19th) edition, specially revised by the Author to accord with the New U. S. Pharmacopeia, edited by Leonard Dobbin. 12 mo., 760 pages, illustrated. Lea Brothers & Co., Philadelphia and New York, 1906.

It is necessary that the physician should understand, not only the general principles of the science of chemistry, but their applications in medicine and pharmacy as well. This manual is intended as a systematic exponent of the science of chemistry, in its application to the principles engaged in medicine and pharmacy. It is equally useful as a reading book for those having no opportunities of attending lectures, as well as a text book for college students. The index is very comprehensive, containing nearly 10,000 references. Substances that are of only scientific interest are not included, but the chemistry of every substance recognized officially is carefully considered. The volume is concise, yet complete and is a valuable addition to the library of one who desires a profound knowledge of the remedies that he applies in his daily routine.

DIE ARZNEIMITTEL DER HEUTIGEN MEDIZIN MIT THERAPEUTISCHEN NOTIZEN FÜR PRAKTIISCHE AERZTE UND STUDIERENDE DER MEDIZIN. Von Dr. Otto Dornbluth. Zehnte Auflage. A. Stuber's Verlag (C. Kabitzch) Würzburg 1906.

This little volume contains in a very concise form, a complete list of the more important drugs and synthetic products used in the present day. So many of

these new remedies are appearing upon the market, of such complex chemical make-up, that it is difficult, indeed, for the busy physician to keep them all in mind. This volume contains not only a list of these remedies, but also a description of the chemical make-up, dosage, price, etc.

A LABORATORY MANUAL OF PHYSIOLOGICAL CHEMISTRY. By Elbert W. Rockwood, M. D., Ph. D., Second edition, revised and enlarged. With one Colored Plate and Three plates of Microscopic Preparations. Large 12 mo. 229 pages, extra cloth. F. A. Davis Co., 1914 Cherry St., Philadelphia, Pa.

This book is intended for laboratory instruction as opposed to didactic instruction. It has been prepared with the aim of imparting accurate knowledge through the student's own observation.

ORTHOPAEDISCHE TECHNIK. Anleitung zur Herstellung Orthopaedischer Verband-Apparate. Von Dr. Hermann Gocht. Stuttgart Verlag von Ferdinand Enke. 6 marks.

This volume is published in order that the methods used in the construction of orthopedic appliances, such as braces, jackets, arch-supports, etc., may be better understood. It is illustrated with 162 plates, and the exact method, from a mechanical standpoint, of making steel braces, leather braces, celluloid jackets, is accurately described.

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